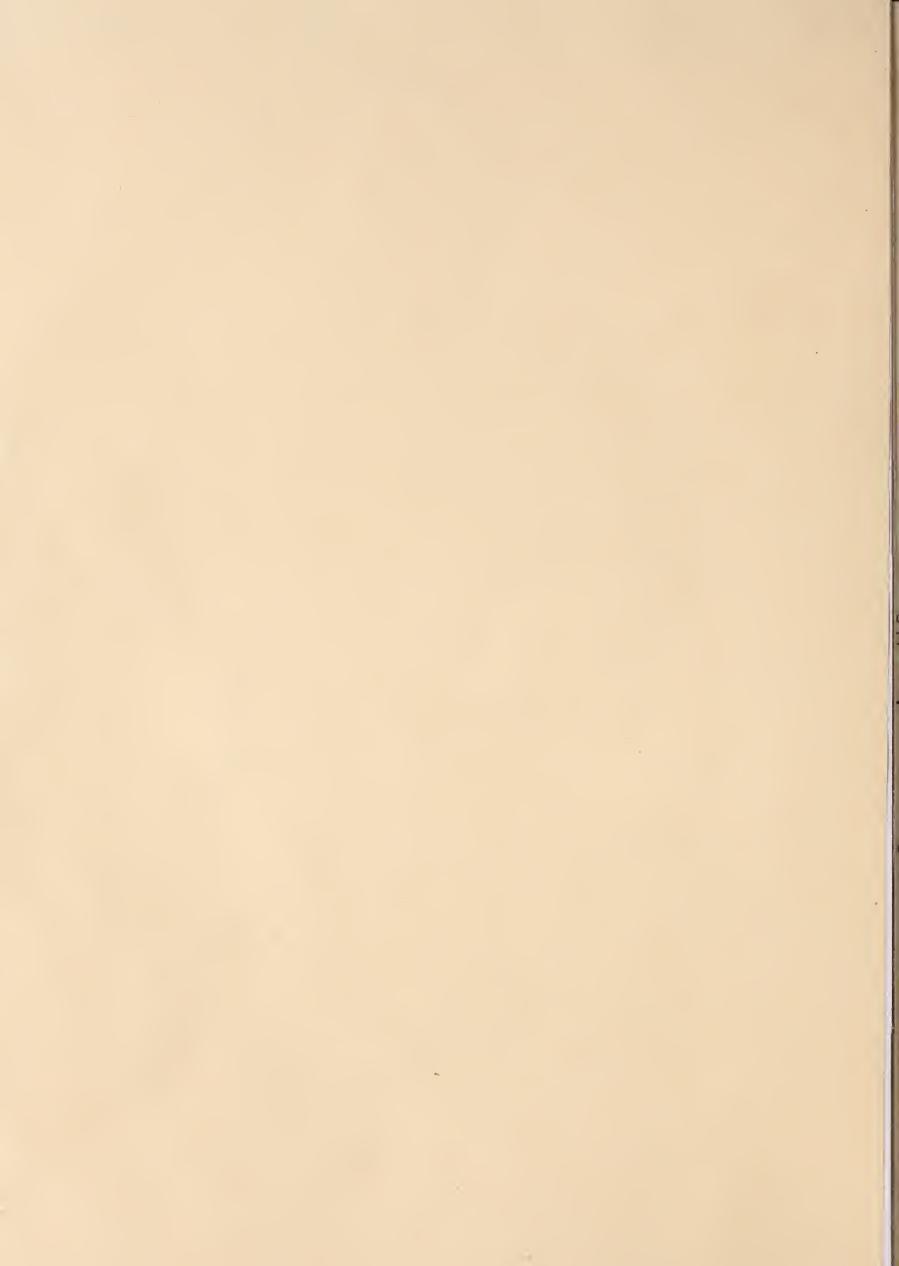
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## The Daily Digest

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\*\* JUN 8 1942 \*\*

U.S. Department of Agricuturs

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Washington, D.C., June 1, 1942

In Iowa, four out of every seven loaded trucks return empty. Since shorthaul trucks apparently give rise to a greater percentage of empty trucks than long-haul trucks, the figure for empty-return mileage is not so startling. However, approximately 26 percent of all motor-truck miles are made empty. From a study undertaken by the Iowa State College based on data which had been collected by the state highway commission, the conclusion was drawn that some 43,000 truck tires could be saved annually in that state alone by keeping all trucks loaded. Furthermore, there might be a not reduction of approximately 2,690 motor vehicles, with a corresponding saving in the man labor absorbed in their operation under present conditions. It is certain, of course, that not all of the empty truck mileage can be eliminated, but it is equally certain that a considerable amount of it can be saved thru careful planning, adjustment of laws in some cases, and in others adjustment in the thinking of local tire-rationing boards.

ADJUSTMENTS IN MILK DELIVERY SYSTEM. An article on adjustment in milk delivery systems to meet the tire shortage, in Dairy World, says:
Such services as assembling and transporting milk from dairy farms to the milk distributors and from there to the wholesale outlets such as stores, and restaurants is vastly more important than delivering it to the home doorstep. This holds true not only for milk but for other products as well.
Consumers can, if necessary, find a way of getting products, including milk, from the retail store to the family kitchen. . The Federal Trade Commission points out that "as many as nineteen classes and grades of milk, cream, butter, buttermilk, cheese, eggs and other commodities are carried on and delivered from the same milk vehicle in as many as 63 sizes and shapes of packages."

ment, cheese-makers will run production up to surplus levels. A new alltime high record supply of American cheese -- 180,151,000 lb. -- was apparent
when the government took stock of cheese on May 1, the reserve having increased during April by 16,212,000 lb., contrary to normal experience.
Stocks are now almost double those of last year. Lend-Lease buyers own more
than a third of the record store of cheese, and the implication is that
acquisition has outrun ability to ship cheese abroad. The question of age
therefore arises. Some aging sweetens American cheddar, too much doesn't
help.

CANADA STANDARDIZES FLOUR-BAG SIZES. Canadian Textile Journal, May 22: As a means of conserving burlap, jute, cotton, kraft and coated paper by eliminating waste involved in cutting odd-sized bags and packages, the administrator of flour and cereal products. Wartime Prices and Trade Board, has ordered a reduction from eleven to four in the sizes of bags in which wheat flour may be sold.

CUBAN PROGRAM TO INCREASE AGRICULTURAL PRODUCTION. Foreign Commerce Weekly, May 23: An exemption from customs duties and taxes has been granted on goods imported by the Cuban Ministry of Agriculture in connection with the Government's program to increase agricultural production. Chief among the items involved are agricultural machinery, implements, seeds, and farm animals. The purpose of the decree is to facilitate the production of foodstuffs required by the island in the present emergency.

Utilization of cold-storage depositories in Cuban bonded warehouses for nationally produced perishable foodstuffs intended for internal consumption is prohibited. These refrigeration facilities are to be reserved exclusively for the storage of imported foodstuffs destined for internal consumption and for Cuban products prior to their exportation. Reasons for the measure are to insure adequate storage facilities for imported products requiring refrigeration, and to encourage more widespread use by domestic products of existing cold-storage warehouses outside of the customs zone.

SHORTAGE OF EGG CASES. American Egg and Poultry Review, May: Increasing scarcity and higher recent prices for both new and used egg cases are causing greater appreciation of the lowly emptied cases and the methods to be employed for their conservation. So important has the subject become that OPA has issued price ceilings, lately revised and made permanent, on all used cases with the exception of those sold on the Pacific Coast. In the eastern states the shortage of used cases has been especially acute. Means are being employed to conserve the supply of existing cases. Under increased activity in redonditioning cases, stressing to retailers and other emptiers the importance of taking care of egg cases, gaining the support of Army officers in the Quartermasters Corps to save and resell emptied cases, and influencing producers to realize that egg cases are valuable and therefore worthy of care and educating all employees who handle cases, either full or empty, how the cases, fillers and flats should be conserved — results are being obtained.

SIMPLIFICATION OF COOKSTOVES. Business Week, May 23: Manufacture of domestic cooking appliances and above—the—floor heating stoves for civilian use is restricted after July 31 to simplified, light—weight types, described as follows: Gas ranges — not more than four top burners, one baking oven and one broiler, no storage space or accessories; total weight of metal not over 100 lbs. Gas hot plate — not more than three burners; total weight of metal not over 15 lbs. Coal or wood range — one baking oven, no storage space, no warming closet, no accessories; weight of metal per unit limited to 70% of average weight of metal used per unit in year. ended June 30, 1941.

NATIONAL FARM YOUTH FOUNDATION. Implement & Tractor, May 23: According to a survey by the National Farm Youth Foundation, more than 2,250,000 hours of training have been provided young men and women by the foundation during the two years of the organization's existence. Courses, both University Extension and "laboratory," on-the-scene, practical instruction in modern methods of farm management and engineering, have been given free of charge to more than 16,000 young men and women of American farms. This year, over \$70,000 in university agricultural scholarships and other cash awards will be made to the most outstanding young men and women enrolled in the foundation's program.

PRODUCTION OF MEAT ANIMALS. Article in Western Livestock Journal, May 15: In determining future production of meat animals, an important thing to consider is that the whole world cutside of the Western Hemisphere is faced with a rapidly diminishing supply of meat. Even after the war closes, years will be required to replace the breeding animals which have been destroyed. This applies particularly to cattle, both dairy and beef. Even in the British Isles, in which there has been no destructive invasion, a rapid decrease in breeding stock is taking place due largely to a lack of shipping space for bringing in the becassary food from overseas. For a number of years after the war closes the United States will be called upon to supply food to countries which have been impoverished as a result of the war, a large part of which will be meat in some form and dairy products.

SWISS EXTRACT OIL FROM TOBACCO SEED. A report by the Official Information Bureau of Switzerland, New York City, in Western Tobacco Journal, May 26, says: To somewhat alleviate the acute shortage of fats and oil in land-locked, neutral Switzerland, the Swiss Federal Department of Economics recently ordered the use of tobacco plant seed for the production of oil for cooking or technical purposes. Under normal conditions Swiss tobacco growers prevent the general formation of seed after blossom-time. The new decree instructs the planters to let a quarter of their crops mature. It is estimated that a harvest of from 500 -- 1000 kilos of seed may be expected per hectare (1 hectare -- 2.47 acres). Tobacco seed, it was found, contains about 40% of a good quality oil which can without previous refining process be used for cooking. The tobacco growers are assured of 1.50 Swiss Francs per kilo (1 kilo equals 2-1/5 lbs.) of seed and the government hopes to obtain approximately 100,000 litres (1 litre equals 1-3/4 pints) of oil from the same.

WOOD CULVERTS FOR "DURATION." Business Week, May 23: If "duration" isn't longer than ten years or so, American Rolling Mill Co. is prepared to keep customers supplied with culverts made of wood instead of steel which should last until Armco plants get back to peacetime production. Made of short lengths of wood which would ordinarily be discarded, the prefabricated sections may be joined together in the field by unskilled labor. In case of temporary arms plants, wood culverts will serve the expected life of the projects. When used in permanent installations, postwar replacements may be made by threading corrugated metal pipe through the wood culvert or by jacking a metal pipe around it.

BRITISH COTTON YARN FOR CANADA. Canadian Textile Journal, May 22: Under arrangements between the Canadian and British Governments 1,400,000 pounds of British cotton yarn will be available to the textile industry in Canada in the second quarter of 1942, with a similar quantity of yarn expected to be available in each of the third and fourth quarters. Total imports of cotton yarns and threads into Canada amounted to 2,758,204 pounds in the first quarter of 1942, against total imports of 1,685,458 pounds in the same period of 1941.

WOMEN DRIVERS ON MILK ROUTES. The Dairy World, May: According to an announcement by John T. McGreer, vice president and general manager of The Beatrice Creamery Company is employing women drivers on milk routes in Wichita, Kansas, and in Lincoln, Nebraska on an experimental basis. So far their work has been satisfactory.

MEAT INDUSTRY STUDIES ARMY BONELESS BEEF. Butchers' Advocate, May 27: The meat trade is watching with interest the Army's new method of preparing and handling beef for military use and trying to gage its possible application to civilian needs. Wartime transportation problems are serious and the Army's ready cut meat has the advantage of saving much shipping space. Army boneless frozen beef is prepared in three classifications: steaks and roasts, stewing and boiling pieces, and ground meat.... The bones and fat salvaged from the carcasses of beef are used for soaps, fertilizer and other useful by-products. Hence, the Army saves in several ways storage space is better utilized; shipping costs are slashed because of the removal of bones and fat; and the Army Mess Officers and their staff are saved hours of work that used to be spent in "breaking down" quarters; there is less wastage and no serious garbage problem usually caused by meat bones and fats; the profitable utilization of waste bones and fat into useful by-products.

PARAGUAY PROMOTES COTTON BAGS FOR SUGAR, FLOUR. Foreign Commerce Weekly, May 23: The use in Paraguay of locally made cotton bags as containers for domestic sugar and wheat flour is required by decree law. Sugar and flour may be packed only in bags of 50- and 70-kilogram capacity, respectively When these products are imported in jute bags a surtax will be paid on each bag equal to the difference in the price of a cotton bag and that of a jute bag increased by 25 percent. The Department of Industry and Commerce-will periodically set the difference in price between the two types of bags.

PINE NURSERIES SAVED BY INOCULATING SOIL. Science Service release, Pine, spruce and other conifer seedlings frequently fail to grow when transplanted into prairie soil. Cause for these losses has been traced to lack of a certain fungous growth on their roots, by Iowa State College. Seedling loss was particularly troublesome on new nursery sites, where seedlings of jack pine, Norway spruce and other conifer species produced weak, straggly growth, or died when only a few inches high. Roots of these seedlings were found to be uninfected with the fungal threads which are found in the root tissues of healthy trees. The situation was remedied by inoculating the soil with surface litter from an older coniferous plantation, which contained the necessary fungi. Phosphorus seems to be the chief plant food material which the fungi enable the trees to absorb. Application of phosphate fertilizer without soil inoculation resulted in satisfactory growth, and the fungi appeared on fertilized seedlings.

BREEDERS REFUSED TO LEAVE CHANNEL ISLAND CATTLE. Western Livestock Journal, May: The many friends in the U.S. of the Channel Island cattle breeds will be anxious for news of them. There is very little. In Jersey, most of the farmers decided to remain with their herds and little has been heard of them. The last actual shipment of cattle was early in June, 1940. As soon as it became known that all the armed forces were to be withdrawn from the Island, many English breeders offered to take the stock and feed them free of charge. But it was quite impossible to obtain shipping facilities, and things were made worse by a suspected outbreak of foot—and—mouth disease on the Island. So the cattle, together with the records and documents, remained in Jersey. A number of well—known Island personalities have written through the Red Cross saying they are well. But it is a curious fact that none seems to refer to the cattle. It is presumed that such references are prohibited. With the Guernsey cattle it is much the same story.

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Washington, D.C., June 2, 1942

LESS LABOR FOR HAY. Country Gentleman, June: Bales per acre is the new roughage hay yield measure in the Corn Belt, as a result of the rapid increase in use of pick-up hay balers. Since hayracks vary in size, it is more accurage than "loads per acre." There's something new, too, in the cylindrical bale. Instead of the conventional baling wire tie, it is held together with binder twine. The cylindrical bale is the product of a "one-man" baler being perfected by a leading manufacturer. Instead of being pressed into bales the new machine rolls the hay into shape. Length is about that of a standard bale and the diameter about the same as the width of the conventional product. It is claimed that this system of "rolling" the hay makes for a smaller loss of leaves. However, the main point is that the machine automatically forms and ties the bales and does away with two men riding the baler.

PRAD THE LABEL ON COFFRE PACKAGE: Consumers' Guide, May 15: In the years before there was a Food and Drug Administration to go into action, a coffee stringency like the present one might have been a signal for adulterators to go to work with wheat and barley and chicory and acorns. Under the present Food, Drug, and Cosmetic Act it is not illegal to mix coffee extenders or substitutes with coffee. It is illegal, however, to mix these adulterants with coffee and not to tell consumers about the mixture on the label. It may be that some products which are mixtures of coffee and substitutes will appear on the markets. But if they do, you can tell them by reading your coffee labels. Actually there is nothing wrong with such mixtures, except that many people don't like them. Some people do. In parts of the country a blend of coffee and chicory is preferred to straight coffee. Then there are coffee substitutes made of cereals. Some people like them. Under the pressure of the 75 percent order more people may try them and find out that they like them.

RUBBER IN DENMARK, NICARAGUA, PANAMA. Foreign Commerce Weekly, May 23:
The Danish rubber industry is adapting itself to the production of rubber substitutes, according to European press reports. Experiments with substitutes derived from limestone and coal have reportedly proved successful, though costs are expected to be high. At present, local manufacturers are mixing the remaining supplies of crude rubber and quantities of German "Buna" substitute, and the resulting product is said to have excellent qualities.... All exportable rubber produced in Nicaragua up to and including December 31, 1946, will be purchased by the Rubber Reserve Company, according to an agreement with the Republic of Nicaragua.... The Banco Agro-Pecuario of Panama has announced that it will not finance the gathering of rubber, but is prepared to purchase the gathered product for the United States Government as soon as a price is established.

SYNTHETIC RUBBER PRODUCTION; RUBBER FROM SOUTH AMERICA. Victory, May 26: The War Production Board is making every effort to expand the production of synthetic rubber, and is investigating every possible new process, but the information we have shows that every pound of synthetic rubber which this country will be producing at forced draught between now and the end of 1943 must be reserved for direct and indirect military purposes. None can be made available for the manufacture of tires for non-essential civilian purposes....Negotiations are in progress with all latin American countries, and agreements have recently been made with Brazil, Peru, and Nicaragua in which the United States will take the entire exportable surpluses of their rubber for the next 5 years. This will meet only a small part of our needs. Brazil will be able to ship this country from 10,000 to 15,000 tons of crude rubber this year, and, we hope, perhaps 25,000 to 30,000 tons in 1943. The Peruvian agreement is expected to provide between 6,000 and 10,000 tons over the 5-year period.

Puffed-up sand, technically known as silica aerogel, is about twice as good a heat insulator as any other substance, the American Institute of Chemical Engineers, meeting in Boston, was told. The material is now being used chiefly in the insulation of high-temperature laboratory furnaces and extremely low-temperature chambers for the liquefaction and freezing of gases. When peace comes and new household refrigerators appear in the stores, the present three-inch walls can be reduced to one and a half inches. The present six and a half cubic foot model can have its inside expanded to nine cubic feet without any increase of outside dimensions.

FENCE POSTS PRESERVED WHILE GREEN. Country Gentleman, June: Fence posts preserved while green can be set at once, and a lifetime of 15 or more years is assured, Oregon State College reports after extensive experiments. A three-quarter-inch slanting hole is bored in the green post about six inches above the ground line. A tablespoonful of preservative is poured in and confined with a cork or wood plug. Two holes are needed for eight-inch posts; three for twelve-inch. The preservative, which costs about six cents a post, consists of equal parts by weight of corrosive sublimate (mercuric chloride), arsenic, and common salt. Commercial grades are satisfactory. The treatment, halting both decay and insect boring, must be used on green wood, because the sap dissolves the chemicals and carries them through all parts of the wood.

23: To compensate for the shortage of artificial fertilizers, an Eire cement company, at the request of the Minister of Agriculture, has agreed to place on the market at nominal cost a byproduct of the cement factories known as potash lime dust. This product is primarily of value for its lime content. It contains from 2 to 3 percent of potash in addition to lime and should prove useful for application to tillage crops at the rate of from 1 to 2 tons per acre — particularly on land deficient in lime.

STORAGE SPACE FOR NEW WHEAT. Business Week, May 23: Contrary to tradition, the Commodity Credit Corp. is foreclosing the mortgage on farmers' wheat and the farmer is in a hurry to turn the old wheat over. Probably the CCC would prefer that the borrower not even notice that the loan was in

default, for the question of storage space for wheat is coming to a head; and there is no more room for wheat apparent now than there was a month ago. Beginning May 25, an effective embargo on all wheat moving to terminal storage goes into effect, and about June 1 all wheat moving into cash grain markets will be subject to permits issued by terminal committees.

CONSERVATION OF FARM TRANSPORTATION. Secretary Wickard, in a memorandum to USDA War Boards, said in part:.... The Department of Agriculture is in charge of all natural rubber production in the United States, such as the guayule program. The Department also is advocating the use of farm grains to make synthetic rubber but realizes that shortages of critical materials will prevent an early expansion of rubber production from such sources. Optimistic reports about large importations of rubber or large rubber production from domestic natural or synthetic sources are without foundation of fact. Civilians must practice the strictest conservation.

Before the war, the Nation was driving 34 million passenger cars and 4 million trucks. Now, production for civilian use has stopped. Where in 1941 a total of 650,000 new trucks were placed in operation, today the Nation has but 130,000 new trucks on hand and they must last the duration. This small number must take care of army requisitions, lend-lease exports, and essential civilian requirements. Few farmers will be able to get them. Manufacturers who make repair parts have shifted production to military essentials. Parts now in stock will have to last for the duration. The drain on stocks will be extremely heavy. In some areas, repair parts soon may be fifficult or impossible to obtain....

I am asking USDA War Boards to undertake at once programs to get in touch with farm vehicle owners, urging their wholehearted cooperation in voluntary actions to conserve farm transportation facilities.

MILK MUST BE HANDLED CAREFULLY. (USDA CIRCULAR): Thousands of farmers are shifting from the production and marketing of cream to the production and delivery of whole milk. Many of them must now learn how to produce and market whole milk of unquestionable purity. Unlike cream, which often is held for several days and delivered after it has soured or ripened, whole milk must be delivered daily and reach the processing plant while it is still fresh and sweet. Buyers and graders at the processing plants have an increased responsibility as a result of these shifts in marketing methods, and also because many farmers are now selling milk for the first time. Care to produce clean milk on the farm, and care in grading at the receiving plant, will make the dairymen's effort count 100 percent in the Food-for-Freedom program.

STUDIES ON ALFALFA MEAL. Poultry Supply Dealer, June: Additional information on the carotene and riboflavin content of alfalfa has recently been presented by Hanke and Perkins of the Kansas Station. It was found that sun cured meals on the average were much lower in both carotene and riboflavin than were the dehydrated samples. It was also evident that the carotene and riboflavin content of the leaf meals was on the average higher than for the alfalfa meals. A high correlation was found between the riboflavin content and the carotene content of the dehydrated meals and leaf meals. An important finding was, however, that there is a very wide variation between different samples of meals of the same kind and there were samples of dehydrated prod-

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ucts that were lower than some of the sun cured samples. Thus while on the average the dehydrated products were better one cannot be positive that each sample of dehydrated would be superior. The variation in the carctene content was much greater than in the riboflavin content. It was also found that samples in the hands of the manufacturer were generally higher in carotene than those in the hands of the mixers. This suggests a loss in potency from the time they are manufactured until the time they are used. These findings are of importance especially now because of the limitation of vitamin A from fish oils for poultry feeds and emphasize the value of alfalfa products as additional sources of riboflavin.

CHESE AND EVAPORATED MILK IN QUANTITY. Dairy Record (May 27) says:

It is no secret that until shipping facilities are provided FSCC purchases of evaporated milk and cheese constitute a large and growing headache. Britain wants both and Russia could use some of both, but boats aren't available to transport them and they are piling up in every warehouse from here to Omaha. Evaporated particularly represents a troublesome and expensive storage problem for it must be turned every month. That is neither convenient nor cheap. It is politically inexpedient to lower prices of evaporated and cheese much farther, and Uncle Sam will have to continue to buy both even though he wants neither very badly. Last week he accepted the largest offering yet, 1,241,900 cases, and that brought the total since March 15 last year to 36,598,135 cases. This is more than 15,000,000 cases above the goal and about that much more than AMA is able to handle right now. Obviously something has to be done to "cool off" the evaporated and cheese deals, but just what that something is remains an unsolved problem.

FERTILIZERS IN GREAT BRITAIN. American Fertilizer, May 9: An article in Chemical Age (London) for January 10, says spread of the war to the Far East cuts off rock and phosphatic materials. This situation may become so acute that the form of the product and methods of manufacture may have to be changed. It may be that the use of metaphosphates of calcium and potassium will increase in the near future....Pelleted fertilizers have evoked interest. Such products are made by forcing the material through mill dies and cutting into suitable lengths. The method is said to be applicable to nearly all fertilizers, whether single or mixed and whether mineral or organic.

BETTER CREAM NEEDED. Country Gentleman, June: Thousands of pounds of cream produced on farms for buttermaking purposes this spring and summer will probably be rejected, when offered for sale, on account of its mold content. Especially will this be true in the South and Central Midwestern states, where cream is seldom marketed more than twice a week and where cooling facilities are often lacking. Sampling of butter at approximately 50 Midwest creameries this past year showed from 19 to 58 percent of the butter from June to October exceeded the 60 percent mold limit. Such butter is subject to seizure by most state food inspectors and by all Federal food and drug inspectors.

GERMANY REDUCES BREAD QUALITY. Foreign Commerce Weekly, May 23: Revised milling and bread-distribution regulations have been promulgated in Germany. Milling of grain to new lower standards became compulsory from April 1, though existing stocks of flour of the old standards may be baked until June 15, according to the Frankfurter Zeitung.



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Washington, D.C., June 3, 1942

WEATHER AND CROPS. Weekly Weather and Crop Bulletin, June 3: The week was abnormally warm in all sections east of the Rocky Mountains, except the extreme South, the extreme Northeast and northwestern portions of the area. In the Interior Valleys the temperature averaged mostly from 6° to 10° or 11° above normal. Rainfall was light rather generally in the South and far Southwest. In the Atlantic area it was mostly light to moderate, generally light in the Ohio Valley. In the East higher temperatures and adequate moisture in most places have been decidedly favorable. In the Central Valleys the week was generally favorable, with all vegetation responding rapidly. In the Northern States from the Great Lakes westward there has been too much rain in most places, with considerable complaint of damage by wind, flooding, and washing. Some stations in Minnesota report the wettest May in more than a century. southwestern Plains had a decidedly dry May and moisture is now needed rather badly in many places. The weather, on the whole, continued favorable for the development of small grain crops. East of the Mississippi River winter wheat made generally good progress and is now heading as far north as Maryland and blooming to the central Ohio Valley. In the Great Plains States a favorable outlook continues, with ripening reported as far north as southern Kansas where harvest is expected to begin within a week or two. North of Kansas progress of winter wheat continues mostly excellent. The Spring Wheat Belt has had an extremely wet season and with recent seasonable temperatures, growth has been rapid. Dry sunshiny weather would be helpful, especially in the eastern belt. Corn, in the eastern part of the belt, got off to a rather late start, but it has responded rapidly to recent high temperatures and sunshiny weather. In the western belt progress is mostly good, with planting well along in eastern Kansas and nearly finished in much of Nebraska. In Iowa planting has been practically completed several days earlier than normal..... In the Cotton Belt the week, considerably warmer than normal, especially in northern sections, was favorable for the cotton crop..... In general, truck and minor crops are progressing satisfactorily, although rain is needed locally in the Southeast, extreme Northeast, and parts of the South-Central States. The range is needing rain in some southwestern sections, but in general over the western grazing country it is unusually favorable and livestock are thriving.

SEED FOR 1943. Editorial in Market Grovers Journal for June: Western growers of biennial seed crops, onions, beets, and carrots, have not been without their troubles during the past winter. It seems, however, that roots have been available for replanting where losses occurred and prospects are favorable for a normal seed supply. It seems that seedsmen have visely diversified their planting areas. Idaho is getting to be an important state for small vegetable seeds along with the peas which it has long produced. The spinach story will have to develop later.

AMPIE SULPHUR STOCKS AVAILABLE. American Fertilizer, May 9: The American sulphur industry finds itself well able to cooperate with industrial users of sulphur who recently were advised by the War Production Board to build up stocks of sulphur at their plants so that possible future transportation tie-ups would not halt their operations. All sulphur production and shipment records were broken in 1941 and stocks at the mines decreased about 7%. The sulphur industry, however, during the first three months of this year, was able to exceed by about 8% the 1941 rate of production and increase by about 20% the rate established during the first quarter of 1941. As a result, stocks of sulphur at the mines on March 31 of this year were slightly in excess of the stocks at the end of 1941 in spite of present accelerated demand and shipments.

SCRAP METAL COMBED FOR SPARE PARTS. Consumers' Guide, May 15: All over the country farmers, and particularly farmers' kids, have been getting in the scrap (metal). Each farmer was warned not to haul anything to the scrap pile that he would need. He might turn in everything he didn't need but there still might be parts thrown away his neighbors might use. Out in a couple of Utah counties, and down in Oklahoma, and up in Maine, lots of people had the same idea. That is, that the scrap-metal pile should be combed through for usable spare parts before it was actually broken up and shipped out of town. Scrap metal, where this idea is put to work, is first hauled to a spare-part pile. To this pile the spare-part dealers, the high school shop class, and any farmers in need of parts make a daily pilgrimage. They go through the pile and when they find a part they can use, they pull it out. One Oklahoma county uses the spare-part pile to create rebuilt machinery. Kids in the high school do the rebuilding, using an acetylene torch and welding torch freely. The rebuilt machinery then goes into a bank which lends, sells, or rents the machinery to farmers when they need it. Washington State's farmers put another twist on the trick. discarded farm machinery is repaired and then auctioned off on community day. The result is no idle machinery in this part of Washington at all. Every wheel is rolling toward the Food-for-Freedom goals.

DAILY COST OF FARM MACHINERY (From USDA publication, Farm Machinery Goes To War): We all know that machinery will cost less per day of use if we work it more days in the year; but probably few of us realize just how much less. If certain types of farm machines were used twice as much as they are at present, the cost per day would be one-third less. The estimated daily cost of a 5-foot combine is: Average use—\$7.30; half average use—\$12.60, and twice average use—\$4.75. For a general purpose 2-plow tractor: Average use,—\$5; Half average use—\$6.50, and twice average use—\$4. For a manure spreader the figures are \$1.25, \$2 and \$.75. For a 5-foot horse drawn mower: \$2, \$3.50 and \$1.25.

TRAILERS INCREASE FUEL COSTS. Successful Farming, June: The farmer who hooks a trailer behind his automobile will find fuel costs rising within a range of seven to 20 percent, dependent upon the type of trailer, speed of travel, and a variety of lesser factors, the South Dakota Experiment Station finds. Tests on smooth, hard roads with a light, two-wheeled trailer indicated that a 2,900-pound load could be pulled with an increase in fuel cost of seven percent on the average. Attachment of a four-wheeled trailer wagon indicated that a 5,470-pound load raised fuel consumption by 20 percent. Both tests were conducted at 30 miles an hour.

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FORESTS TO GO TO WAR. Science News Letter, May 30: "The North American forest has gone to war," Henry Schmitz, president of the Society of American Foresters, told the Society. Unprecedented demands upon American forest resources are being made and met. Of the 1941 cut of lumber, 23 billion board feet, or 73% of the total, went directly or indirectly into the war effort, and the amount is certain to increase as the nation really hits its fighting pace. Wood is being used not merely for its traditional purposes, but is having to take over many of the tasks of metals drafted for war. Timber trusses replace steel beams in bridges and under roofs, plywood planes appear in the skies, wood-pulp cellulose supplements cotton linters in the manufacture of guncotton and its derivative smokeless powder. Despite increased cutting necessitated by the war, it is expected that large lumber producers will continue to follow the sound practices they have adopted, of making replacement plantings wherever they remove the forest cover. But cutting of immature, rapidly growing stands will have to be watched.

KEEPING A GOOD EGG GOOD IS EQUAL TO LAYING ONE. U.S. Egg and Poultry Magazine, June: In 1941 the average American ate six eggs a week, marketing officials of the U.S. Department of Agriculture estimate. Some ate more, some ate fewer, of course. The egg production goal for 1942 in the food-forfreedom program - 4 billion dozen eggs - means an increase of about 13 percent in the number of eggs produced - seven eggs for every six laid last year. Most of the increase is needed for egg shipments to the United Nations. However, Americans could still eat their six eggs a week if some of the waste of good eggs between the nest and the table can be prevented. Poultry specialists say that fully 5 percent of the eggs ordinarily produced in both small and large poultry flocks are lost for preventable reasons. Even if this loss averages only an egg a day on each farm the total is huge. Causes of egg loss include producing fertile rather than infertile eggs and holding them in too warm a place; failing to gather and cool all eggs promptly; lack of moisture in the holding room, resulting in shrinkage of egg contents; dirty eggs; unnecessary breakage from rough handling and bad packing; permitting broody hens to set on eggs and ruin them. If egg producers succeed in holding egg loss to a minimum, reaching the 1942 production goal of 14 billion dozen eggs may also mean nearly complete utilization of that many eggs.

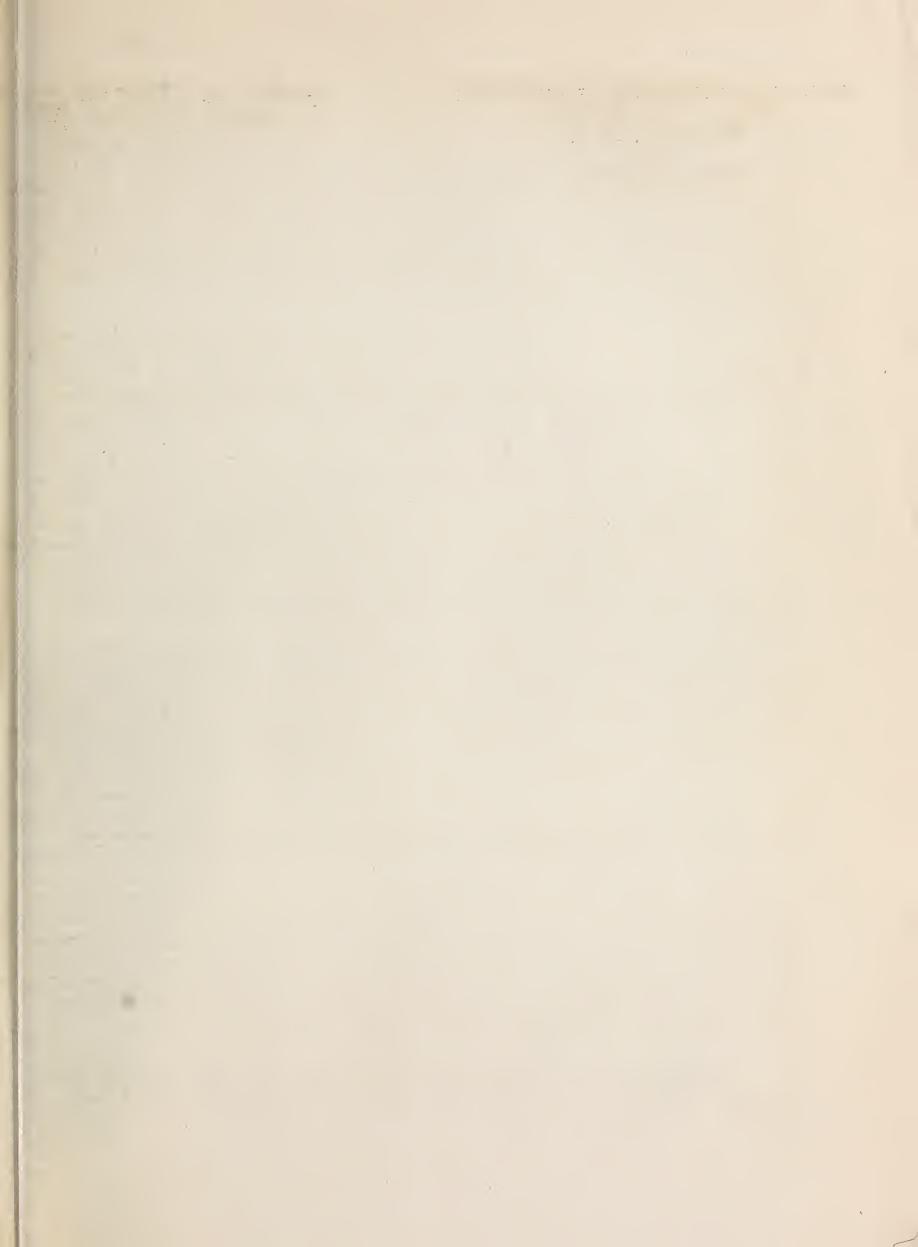
EMERGENCY FARM FIRE PROTECTION. Article in Country Gentleman, June:
The California Emergency Farm Fire Protection project swung into being soon after the raid on Pearl Harbor. Already in operation were the U.S. Forest Service, the National Park Service, the Indian Service and the Army, besides city and village fire districts, rural districts and associated timberland owners. To these were added, in the farm counties, rural fire protection committees, consisting of the farm adviser, state forest ranger and other key persons. Under the county fire protection committees were organized farm fire-fighting companies, each of not less than ten volunteers....By April first, 2154 volunteer fire companies had been lined up — a big head start toward the summer's aim of one trained outfit for each fifty farms. They're spending no Government money, will employ no outside help. The whole plan is voluntary, utilizing locally available materials and equipment, and operating supplementary to whatever regular fire-fighting organizations may exist in the near-by towns.

PAPER INDUSTRY IN UNITED KINGDOM. Foreign Commerce Weekly, May 23: Handicapped by export-import difficulties and all the dislocations of short-ages in materials and losses of markets, the British paper-making industry still produced a large tonnage in 1941, say reports of the Paper Makers! Association. Converting every available type of fibrous material to its use, the industry turned to bagging, sisal, jute, bracken, reeds, wood waste, and sawdust to replace short supplies. Since rigid control was placed over imported wood pulp, the mass of raw materials has been obtained from waste paper and board, straw, and rags. Publicity given to waste collections in Great Britain brought general realization to the public that paper and board are essential war materials.

BRANDS FACE BAN. Business Week, May 30: Canadian authorities are reported this week to be considering a spectacular new move in their price control program — the suspension of trade names for the duration of the war. No final decision has been reached yet. Dominion authorities are known to have been considering the idea for some time, but leaders both in business and in the government have bucked the idea until now. This week, however, there were recurrent runors that officials had just about decided to present their case to the country's leading industrialists who would be most influenced by any action that may be taken in this direction. Recent developments have made industrial leaders a little more sympathetic to the proposal than they were when it was first raised. But, so far, the Canadians have been following the practice of the British (BW - Dec. 20'41, p30) in seeing that the trade name of individual manufacturers goes on the goods delivered to his old customers, no matter who is now making the product.

POULTRY PRODUCTION CAN BE EXPANDED QUICKLY. U.S. Egg and Poultry Magazine, June: The poultry industry of the United States is doing a real job in furnishing food not only for domestic use but for shipment to other nations needing food. With a goal of 200,000,000 pounds of dried eggs for 1942, the industry has sold to the federal government for lend-lease purposes over 128,000,000 pounds during the first four and one-half months. Over 18,000,000 pounds of dried eggs were produced in March, as one illustration. Domestic consumption of poultry meat has reached staggering figures compared to former years. The out-of-storage movement of frozen poultry alone during April 1942 was approximately 43,000,000 pounds. The figure was 25,800,000 during April 1941 and 24,000,000 for the average. A nation with the grain production and huge surpluses of such found in this country can expand its animal food production tremendously. Poultry production can be expanded more quickly than the heavy livestock in the production of emergency food needs. This America is doing. The national goal for farm production of eggs in 1942 was set at 3,822,417,000 dozens - there were 342,589,000 layers on farms during April according to the U.S. Department of Agriculture which means an average egg production of approximately 133 eggs per hen. Will our industry make this goal? We believe it will.

WOOD FOR STEEL. Science News Letter, May 30: More than 100 ways in which wood can take the place of timplate or steel have been listed by the U.S. Forest Service.



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### The Daily Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

#### Washington, D.C., June 4, 1942

POWERFUL POWDERED MILK. (Kiwanis Magazine, June): Now that milk drops out of the clouds with parachute troops, fights through an Alaskan blizzard at 50 below zero without freezing, runs the submarine-infested Atlantic Oceans to Britain in a much smaller number of ships, milk transformed into powder is fighting all over the world. And on our mainland, as lack of rubber tires, manpower and tin threaten our civilian milk supply lines, farsighted people already ask, "If our transport system becomes badly jammed and restricted, can powdered milk get through?" The answer is, "Magnificently!" For it ships across the continent at the cost of transporting fluid milk six miles!....Here is some milk powder that has been out of our refrigerator for over 10,000 hours. We'll mix it with water and watch our children drink it: it's marvellously fresh! For this is the toughest fighting milk known. It hasn't butterfat to turn rancid, and stands ready to fight on the home front, to open a whole new world of milk to our civilians as well as to our armed forces.

Powdered whole milk is important, but the most exciting story is the unlocking of a great new milk supply. Largely because it takes the cream from ten quarts of milk to make a pound of butter, cream separators spin out such a deluge of separated milk that about 60 million quarts a day find no commercial market; not yet. But milk drying is highly developed; every day you probably eat in bread a tiny part of the six million quarts a day which are already dried for use by bakers, ice cream makers, our military requirements, etc. And trade authorities recently estimated that at least 14 million quarts per day can be run off into powdered separated milk "rather quickly and efficiently," in addition to present production.

The milk is sprayed in a fine mist into the milk-drying chamber, where it strikes a current of warm air, and falls as fine white powder in a split-second. So quickly, indeed, that a quart is "trapped" as three ounces of milk powder, filling three-fourths of a cup, with "little change in its nutritive properties." But in this act of drying, the power of this milk to span distance has been stepped up 400-fold. Dr. W. H. Sebrell of the U.S. Public Health Service says "There is no question of the great food value of separated milk, and dried separated milk made freely available would be of considerable importance in preventing some of our wide-spread malnutrition."

BIG POULTRY EATERS. U.S. Egg and Poultry Magazine, June: Wichita, Kansas, is an outstanding point for consumption of poultry. It claims it is the greatest poultry consuming center of its size in the country. Not many years ago Wichita's population was approximately 50,000. With the development of a nearby oil field and the growth of airplane manufacturing there, the population went beyond 100,000. People in a position to know say the consumption of poultry now averages 100,000 pounds weekly. This volume is handled by city poultry dressers. Poultry dressed at the packing plants is "for shipment only.

TEXTILE INDUSTRY IN URUGUAY. Foreign Commerce Weekly, May 23: Recently textiles have assumed a leading role in Uruguay's industrial activity. In February and early March, woolen mills operated 24 hours a day and cotton mills employed two shifts of 8 hours each. This rate would have been increased to three 8-hour shifts had sufficient raw cotton been available. Domestic manufacturers had import competition, on a declining scale, from the United Kingdom and United States, but of increasing intensity from Brazil and Argentina.

BACE STUDIES FARM SOURCES OF RUBBER. Washington Roundup in Country Gentleman, June: Department of Agriculture chemists seeking a satisfactory synthetic rubber have found several farm sources which offer "great possibilities." The Department has been cautious about making claims until definite results are known. A recent report, prepared by the Bureau of Agricultural Chemistry and Engineering states: "....One of the projects is based on the possibility of producing butadiene from butylene glycol, a material derived from such starchy crops as corn, wheat and potatoes. "We are also studying the possibility of producing other basic materials for synthetic rubber production from furfural, which can be obtained from agricultural residues such as corncobs, wheat straw, corn stalks, etc.

"The bureau is studying the possibility of the production from lactic acid of acrylonitrile, which is the basic raw material for another type of rubber. Lactic acid is produced from milk whey and from various starchy materials. "Another group is engaged in the study of the production of other basic materials for rubber production from naval stores. In addition, the discovery has been made by the bureau that it is possible to produce rubber extenders, a material which can be added to rubber without impairing its basic properties, from vegetable oils".

BREAK FOR GLASS. Business Week, May: Nobody yet knows what share of the food pack can be held in glass when metal is again plentiful. Realistic appraisal makes the glass men believe they will keep a good deal of coffee business because the air seal is restored when the jar top is replaced. They also think syrup in bottles for use on the table is a natural which they can hardly lose. A glass company expects that its laboratories will put their final O.K. on a slip-under cap which permits resealing and consequent home reuse of glass obtained as the package for ordinary grocery shelf items. The slip-under seal takes far less rubber than a conventional fruit-jar ring.

THE FLAG IS ON THE PLOW. (Soil Conservation, June): In the last reckoning all things are purchased with food. Such is the fateful and awful truth that hideous famines make known. World-wide war that today is strangling civilization further shows up the enormity of this fact. Food is necessary for victory. Food is rationed by aggressors to subjugate rebellious peoples of occupied countries. Peoples will sell their liberty, their all, for food when driven to extemees of this tragic choice. There is no substitute for food.

Seeing how much people will give up for food, let us look at the things food will buy; for money is only a symbol—a convenience in exchanges of goods we need and want. Our civilization is bought with food; our cultural advantages and satisfactions, our industrial achievements as a nation, and now our all-out war effort against treacherous and powerful enemies—all these are purchased with food.

Not until tillers of soil have grown surplus food beyond their own needs are their fellows released to take up other tasks than those of growing food—tasks of a complex division of labor that give rise to high standards of living and great national effort. This principle holds true regardless of the motive that may prompt tillers of soil to grow food beyond their own needs, whether urged on by whip—lashes of slave drivers, as in ancient Egypt, or by allurements of the profit motive in our heydays of peace, or by compulsions of war in our present crisis.

Lumberjacks do not log forest stands of timber unless food is made available. Miners do not dig the ore out of the bowels of majestic mountains—nor do skilled mechanics make powerful munitions of war. Brave soldiers do not fight our battles of freedom unless food is grown in abundance for their daily needs by our tillers of soil. Food, abundant and adequate, is necessary to victory. The flag is on the plow as well as on the battleship and on the tank.

TRADE BARRIER REMOVED. (Washington Post, June 2): Secretary of Commerce Jesse Jones announced that all of the 48 State Governments have put minimum trucking and reciprocal license regulations into immediate effect to facilitate the movement of war materials over the Nation's highways. Ten days ago a committee of governors received from Federal officials a list of the minimum regulations desirable, and promised to make whatever changes were necessary within ten days. Some States already had more liberal regulations and did not have to make changes, but about two-thirds did make changes. The reciprocal license arrangement will mean that any truck carrying papers identifying its cargo as war material will be able to go from State to State without buying the license plates frequently required at each State border.

CATTLEMEN DO THEIR BIT. (Baltimore Evening Sun, May 26): The cattlemen are doing their bit, too. In answer to demands for a larger production to "help win the war," live-stock men are hard at work. They are increasing their herds as well as intensifying their feeding operations. So far this year cattle have been moving to slaughter at a phenomenal rate. Shipments from the cattle outfits here are running far ahead of recent years. Aberdeen, S.D., once the largest shipping center in the West, has reported huge shipments to Chicago and Sioux City (Iowa) packing houses. The total shipments out of that point are expected to exceed 1,300 carloads this year.

BETTER FARMING IN MEXICO. (Agriculture in the Americas, June):
The forthcoming Inter-American Conference of Agriculture in Mexico City
has brought into prominence the host country's Secretary of Agriculture,
Ingeniero Marte R. Gomez, chairman of the organizing committee responsible
for the event. Traveling through Mexico, the delegates will see many
evidences of the progress that has been made under his direction in improving agriculture. Secretary Gomez, has launched an agricultural program
so broad that it has been called "a new agrarian reform." Its goal, in
the words of President Avila Camacho, is "the economic emancipation of
the Mexican farmer," and it includes intensification of irrigation, soil
conservation through crop rotation, increased crop production, encourage—
ment of livestock, expansion of the system of farm—to—market roads, and
adequate provision for agricultural credit. Marte R. Gomez is symbolic
of the new, vigorous spirit of agriculture in his homeland.

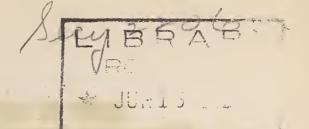
ALONG THE NUTRITION FRONT. (N.Y. Times, June 4): In the laboratories of the University of Minnesota, Dr. Ancel Keys, who is special consultant on food to Secretary of War Stimson, is engaged in interesting nutritional research. Using members of the Army as his "guinea pigs", Dr. Keys is requesting the men to run treadmills and perform various manual tasks. The purpose of the experiments is to establish well-defined relationships between specific foods and degrees of fatigue.

Of even more unusual interest, however, is the work of Dr. Anton J. Carlson, physiologist at the University of Chicago. Recently this authority began a four-year study to find the "optimum human diet". This diet, of practical worth to practically every one, will be nothing more nor less than the "best possible balance of food to enable a person to develop fully and to live longest with the best possible health."

BRIGHT SPOTS IN WAR ECONOMIES. (The National Provisioner, May 30): Granted that our wartime economy is causing some hardships and drastic changes in ways of doing business, it has also forced many shifts for the better. Many firms have realized that their delivery costs were exorbitant, but could do little about it because they were forced to meet similar service from competitors. The proposal to remove more fat from carcasses and cuts at the point of slaughter, although it will call for more labor, has its friends. "I don't want to be accused of rank heresy, " says one packinghouse official, "but I never could see the economy in hauling fat out to the retailer, have him trim it off, and then haul it back to be processed. Another packer raised the point that when the fat trimming proposal goes through, it probably will be "for keeps." As he points out: "Once Mrs. Housewife starts getting her cuts on a pre-trimmed basis, she is not likely to accept the old system of weighing the meat, and then trimming it. Even when the emergency is over and fats are again plentiful, she is not likely to stand for the old way of buying meat. "

ABUNDANT MAPLE SUGAR. (Better Farms, June 1): The largest maple crop in several years was produced in New York from "sugar-bushes" this spring, 47 percent more than last year. New York produced 933,000 gallons of sirup and 177,000 pounds of sugar. Vermont, the leader, as usual, had 1,310,000 gallons of sirup, and 320,000 pounds of sugar. Quality is generally excellent Prices are substantially higher than last year.

### The Daily Digest



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Washington, D.C., June 5, 1942

RURAL PLANNING. The leading article in the Planners' Journal April-June by Ellery Foster, BAE, reviews rural planning developments before and after the Mt. Weather agreement. The conclusion says in part: Today, the work of the rural planning committees is being oriented around three jobs. One is the "food for freedom" program, in which the planning committees are assisting the boards established by Secretary Wickard to give special attention to war problems. The second job is post-war planning, in which the Department of Agriculture is actively engaged. State, county, and community committees will develop the state and local features of a national program for agriculture's part in post-war United States. The third job has to do with farm problems connected with the establishment of war industries and military bases in rural areas, with resultant displacement of farm families .... Farmers and officials of the farm program lock forward to it as a further step in the democratic and enlightened effort to develop and improve agriculture as a fruitful and satisfying pursuit of free men, and as the provider of a more adequate diet for the United States and its friends.... The central idea as the work goes forward on the new task is the traditional democratic one of people living together peaceably by guaranteeing to each other certain agreed upon rights, allowing special privileges to none, dealing with common problems on the basis of majority opinion and decision, -with government protecting the individual in his rights and helping him to be a free and useful member of democracy's organic whole. Those engaged in the work feel that they have found a way to make planning democratic, which fits the culture of nural America. They aren't saying that the same methods would fit the culture of our cities. Rather, they are interested in exchanging experiences with planners who work in the urban and industrial fields. Such exchange will be necessary if rural and urban people, jointly, are to develop a way of planning democratically at the multitudinous points where rural and urban problems meet.

CANADIAN CLOTHING ECONOMIES. (Business Week, May 30): Clothing economies have already been made which are estimated to save enough cloth for one uniform for every member of Canada's armed forces (a U.S. adaptation); delivery services have been curtailed and will be cut further; there has been an important reduction in designs and varieties of paper products; designs of prints and rayon fabrics have been curtailed; the packaging of fish, tobacco, and other products has been standardized. Designs of boilers and radiators have been reduced; so have the number of sizes of bolts and screws, plumbing equipment, shipping cases, and farm machinery. Rubber footwear styles have been cut from 354 to 65, and full-fashioned hosiery from 40 to 4. The immediate program includes further concentration of production, one or more plants taking over elimination of duplication in sales effort; elimination of cross-hauling and other delivery wastage through a new division of territories.

MONEY IN HEAVY HOGS. (Wallaces' Farmer, May 30): Hogs are coming into market these days no heavier than a year ago, in spite of the fact that prices are \$6 a hundred higher and that corn prices are only up 16 cents a bushel. There is good money in feeding hogs to heavier weights on the present corn-hog ratio, but comparatively few farmers seem to want it. With heavy shipments abroad, we are apparently going to be short on lard for a good while to come. Hog prices, in view of lend-lease purchases, will stay near the ceiling most of the summer. And lend-lease buying will also keep prices of heavy hogs up close to the price for light hogs. Any farmer who has feed or can buy it at present prices will find it worth while to feed hogs to heavier weights. Difficulties in transportation later may make some folks inclined to ship hogs light ahead of the traffic jam, but for the time being, the argument is all in favor of the heavy hog.

Syracuse): Malaria germs, and probably the germs of other diseases as well, can be frozen at temperatures colder than 100 degrees below zero in the Fahrenheit scale and kept at that extremely frigid temperature for as long as seven weeks without damage, Dr. Reginald D. Manwell, of Syracuse University here, announces.

His method, so far applied only to germs of bird malaria, consists of instantaneous freezing of the germs in a small amount of the birds blood in a test tube by whirling the tube at high speed in a mixture of alcohol and dry ice. Thawing within a few seconds is required to avoid killing the germs when the scientist wants to examine them or use them for other experimental purposes. Saving of shipping space and reduction in expense will be one result of Dr. Manwell's achievement, since germs can now be shipped frozen in small containers from one laboratory to another, instead of in the bodies of guinea pigs, birds or other laboratory animals requiring bulky cages and special handling en route.

NORTH OF THE BORDER. (Agriculture in the Americas, June): Canada is the Gargantua of the Western Hemisphere family of nations, with an area of 3,500,000 square miles, slightly greater than that of Brazil and a sixth larger than the United States. It is even more sparsely populated than most of the South American countries, containing only 11,000,000 people, most of whom live within 300 miles of the United States. Canada's population density is only about 3 persons per square mile, compared with 43 in this country. Agriculture employs more people than any other single Canadian industry. In value of total output, farming runs a strong second to manufacturing for the country as a whole and predominates in the western provinces. Livestock, dairy products, tobacco, and fruit are leading agricultural items in the two central provinces. In the prairie provinces of the west, where agriculture accounts for 42 to 72 percent of the net value of production, wheat and livestock are the big items. Unlike United States farmers. Canadians lack an extensive domestic market and have always depended heavily on exports.

ARMY VETERINARIANS SPEED FHESH MEAT TO FORCES. (National Provisioner, May 30): One of the biggest jobs in Uncle Sam's army is to keep food rolling to the fighting men — wherever they may be on duty. Located in the

"meat basket" of the nation, the Seventh Corps Area, with headquarters at Omaha, is playing a vital part in Keeping the food rolling from the important producing states of Iowa, Nebraska, Minnesota, Missouri and Kansas. In a recent month, Seventh Corps Area inspectors passed on 63,932,047 lbs. of products of animal origin. Meat, butter and eggs represented in this total exceeded 100 carloads a day. Inspection for purity and quality is the job of the veterinarian and his staff of 44 officers and 100 enlisted men operating over the area. Routine of army inspection and buying has been speeded up materially. There is no more advertising for bids. A packinghouse with products to sell to the Army gets in touch with one of the Chicago units by phone, telegram or letter. Or the Chicago Quartermaster unit may call approved processors for purchase arrangements. Contract provisions can be made by phone or telegram. Under the present system of buying and inspection in the Seventh Corps Area, it is possible for product to be ordered in the morning from Chicago, inspected, and shipped out the same day.

BONED BEEF FOR CIVILIANS. (National Grocers Bulletin, June): Meat packers are giving consideration to the possibility of using their new method of preparing and handling beef for military use for regular civilian markets. More and more beef for the armed forces is being boned at the packing plant and prepared so that it is ready for cooking upon arrival. While recent packaging and freezing developments have greatly overcome consumer prejudice toward frozen meats, the problem of packaging cuts in a way that will please the consumer's eye, and the difficulty of keeping the meat frozen until delivered to the consumers are the serious ones facing packers who visualize extending freezing and boning operations to civilian distribution channels.

CARELESS CUTTING OF FORESTS. (Colorado Spring Gazette, May 4): Forest fires have flared throughout New England and federal and state officials charge sabotage. FBI and army intelligence are pressing every clew to uncover enemy agents. Protection of timber resources needed in the war effort is as necessary as conservation of other essential supplies. Is it not also sabotage when forests are ruined through indiscriminate cutting? That is what a few responsible people impatient to serve the war effort, are urging. Sincerity of purpose does not offset thoughtlessness. land laid bare by the are is destroyed as certainly as by fire. It will' no longer produce. It may serve today's need, however wastefully, but it will not serve tomorrow's. Excited people who put assumed war need above every other consideration do not well serve even war need. The nation needs its forest resources not as never before. It may need them even more tomorrow. It can serve today's naed without making shambles of its forests. If it forgets the hard lesson in conservation it so painfully learned, it will have no forests tomorrow and it will have need, perhaps even war need.

FOOD MAKES TOUGH SOLDIERS. (Science Service reports from Cambridge, May 25): The toughening-up of military manpower is to a large extent a matter of feeding-up, in the opinion of Prof. John D. Black of Harvard who spoke at the Harvard War Institute. Studies of large samples of the American white population in various geographic sections show that from 26 to 40 per cent are living on inadequate diets, with Negroes even worse off. To make men fit to fight, and also fit to work at full efficiency

in factories, this condition must be radically corrected. Experience in Britain has shown that such mass corrective feeding is both practicable and profitable.

Prof. Black warned that we may be up against actual food shortages in this country before the war is much older. He anticipated no trouble for the current year, but stated that lacks in some commodities might be felt as early as 1943, especially if drought or other crop-curtailing conditions should occur. Deliberate over-production should be planned for American agriculture, he believes.

Looking forward to the rebuilding of the world after the war, Prof. Black gave approval to Vice-President Wallace's proposal to make outright donations of surplus farm commodities for the feeding and clothing of liberated but impoverished and starving peoples. The American people, he said, would be much more likely to accept such a plan than to consent to a general tearing down of all tariff barriers.

MOBILE LABOR AIDS FARMS OF BRITAIN. (New York Times, May 30): The mobility of farm labor is just as important on the agricultural front as the mobility of troops on a battlefront. This is the lesson the British have learned after two years of experimenting with the Women's Land Army. As a result many "mobile squads" of land girls are now being organized to act as shock troops to meet the crises of planting, cultivating and harvesting on the farms because of the labor shortage. Although the original system of sending girls to live on farms and work only for employing farmers is being continued, the Land Army is placing greater emphasis this Spring on the creation of gangs of girls who live together in hotels or army huts and are sent out whenever farmers call for help. In some cases these groups of girls have their own farming projects to work on while kept as reserves to be thrown in as needed.

CARE INCREASES MOTOR MILES. (Public Roads, May): In the interest of conservation of hard to get supplies such as gasoline, tires and motor vehicles, it behooves each Agency operating vehicles upon essential activities to require maximum efficiency of performance. Exhaustive tests recently reported by the Public Roads Administration developed facts supporting the following conclusion: "On the average, there is a 30-percent variation between possible performance and the actual performance of vehicles in service. Since not over 10-percent of this variation should be due to lack of maintenance, there remains a 20-percent variation that must be charged to improper operation of the vehicle." Proper instruction and adequate control of operators of motor vehicles will make an important contribution to the war effort.

tion of when and how to cultivate cotton has been investigated by the Mississippi Agricultural Experiment Station. The results of this work are reported in Technical Bulletin 29 of the Station, entitled "Weed Control and Cotton Tillage." They found that cotton had to be cultivated in order to control weeds, but too frequent or too deep cultivation reduced yields. Too great an interval between cultivations allowed weeds to get such a start that cultivation had to be very deep and thorough in order to control the weeds, and this often tended to reduce yields. About every 10 or 12 days was found to be the most desirable frequency of cultivation and except for the first one or two times through the cultivation should be rather shallow since many of the feed roots are near the surface.

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., June 8, 1942

FOODS REQUIREMENTS COMMITTEE. (War Production Board press release, June 5): A Foods Requirements Committee with control over production and allocation of all civilian and military food supplies has been established within WPB, with Secretary of Agriculture Wickard as chairman. The new Committee was named by Donald Nelson, WPB chairman. It will determine civilian, military and foreign food requirements and has authority to increase or limit domestic production of foods as well as food imports. Food rationing remains in the hands of CPA. In addition to Secretary Wickard the committee will consist of representatives of State, War and Navy Departments, Office of Lend-Lease Administration, Board of Economic Warfare, and WFB divisions of Industry Operations, Materials and Civilian Supply. Decisions of the Committee will be final subject to approval of WPB. When all facts, programs and estimates have been assembled and studied, Foods Requirements Committee will make the final decision on how all foods shall be produced and allocated in the light of their availability and of the material and equipment necessary to produce, process, transport and store them. order establishing the Committee assigns definite functions and responsibilities to various agencies concerned with food problems. The USDA will report regularly on domestic food production and, after consulting with the State Department and BEW, on food imports. The USDA also will be responsible for: (1) Increasing or limiting domestic farm production in accordance with decisions of Committee; (2) earlier stages of food production in general; (3) importation of foods and agricultural materials from which foods are derived (these powers have been delegated to the Commodity Credit Corporation within the USDA by the REW); (4) formulation of programs for conservation of critical foods or agricultural materials from which foods are derived.

PLANT FIBERS IN WARTIME. (Agriculture in the Americas, June): In every home and shop, in every factory and mine, and on every farm and ship, there are almost countless products made from the slender, threadlike filaments which are produced by a wide variety of plants. Textile fabrics for clothing and household furnishings; cables, ropes, twines, and threads for towing ships, binding grain, and catching fish; millions of burlap bags for packaging raw materials and manufactured products - these are a few of the hundreds of articles that are made from plant fibers. Nearly two thousand recognized plants yield useful fibers and fibrous material but for only a few of the hundreds of known species are used in large quantities in industry, and these divide into three classes. Hard fibers, which extend through the pulpy tissues of the leaves and leaf stems of plants. The hard fibers of primary importance are abaca, sisal, and henequen, all of which are used in the manufacture of different types of cordage, particularly that in which tensile strength and durability are desired. Soft or bast fibers, which are obtained from the inner bark of plants. The outstanding fibers of this sort are flax, hemp, and jute, the most important uses of which are in both fine and coarse textile fabrics and many different types of cords, twines, and

threads. Seed fibers, which are produced inside of seed pods. The leading product of this type is cotton, perhaps the most versatile of all fibrous substances. Kapok, which belongs in the same group, is used in the manufacture of life-saving apparatus, insulation, and upholstering. Nature scattered useful fiber plants widely over the face of the globe, but mankind through the centuries has done a thorough job of rearranging them so that today production of most of the leaders has become concentrated in the Eastern Hemisphere, particularly in the tropical regions of the south Pacific. The Western Hemisphere, while relatively self-sufficient in food production, has never gone in heavily for the production of fibers in competition with low-cost areas of the East and is on an import basis for all of the principal fibers mentioned except cotton and henequen.

FOOD'S WAR WORRY. (Business Week, May 30): Within the short space of six months, the food manufacturing industry -- once regarded as almost immune to wartime ravages -- has seen 200 grocery items go into limbo because there are no packaging materials for them. Canned pork and beans are fast fading into a memory (producers of this item alone annually consumed enough steel to fabricate two thousand 30-ton tanks). Other processors similarly have forsaken their chosen fields, have even entered such foreign domains as airplane parts, screws, machine-gun sub-assemblies. When the Associated Grocery Manufacturers of America last week assembled in Manhattan for their semiannual meeting, government officials calmly warned that the changes are only beginning. New packaging specifications are coming for baking powder, cleansers, coffee, jams, jellies, preserves, tobacco. There'll be a growing trend toward the use of paper containers, but this trend won? t evoke any sympathetic priority action on the part of WPB for the release of new machinery. Although food men anticipate no serious shortage of rail and truck transportation, they will have to contend with a slowdown in deliveries. Freight trains are growing longer, thereby decreasing speed. The 79 intercoastal boats that used to ship 10,000,000 tons annually are now out of regular service, adding to the burden of the rails. Grain shipments have been barred from the Great Lakes (BW-May 16 '42, P 17), thus further gumming up rail traffic. And imports can no longer be calculated with accuracy. For example, a Brazilian freighter, scheduled to land coffee in New York, may hurriedly dump its cargo in Galveston, which means that the buyer has to plot a long and unexpected land haul (often at high rates). Despite present alarms and worries, food manufacturers see one happy prospect: This war - unlike the last one, which left sour memories of sawdust flour and Johnny-cake - is creating vast future sales possibilities in the field of vitamins and better nutrition. Washington's conduct of the war effort has virtually become a living advertisement for more food, better food.

At the close of 1941, a grocer, faced with emergency conditions and a state of war conducted some research into expenses and discovered that certain of these items were fixed while others, though necessary, could, by conscientious consideration on the part of each employe, be considerably decreased. It was discovered that three per cent net profit could be made on sales volume on a certain basis of operation, and that the profits went higher with the practice of more stringent economies and the elimination of waste. For example, every three cents saved was equivalent to a dollar in sales, and multiplying each ratio by ten produced a most spectacular figure. Thus thirty cents

saved equalled ten dollars in sales, while three dollars saved amounted to a hundred dollars in sales, and so on. In the office it was pointed out that a three-cent stamp was equivalent to a dollar in sales and a five-cent box of paper clips the equivalent of \$1.66 in sales; that three dollars in excess cost represented in the waste of stationery or printed forms equalled a hundred dollars in sales, and so on. The next point of attack was insurnace costs and it was discovered that carelessness and waste accumulation not only created fire hazards, but that a fire increased insurance costs and meant money loss. Furthermore, that a hundred dollar insurance premium equalled \$5,353.33 in sales. The problem of driving trucks was studied and it was demonstrated that it cost a minimum of eight cents a mile; that an average of ten unnecessary miles a day was the equivalent of 3,650 miles a year, and at a cost of eight cents per mile represented \$292 in cost or a net profit absorption of more than seven thousand dollars in annual sales. It was learned from research along these lines that a sixty dollar a month clerk unnecessarily employed equalled \$24,000 in sales a year, and that any unnecessary employe earning as much as \$150 a month was the equivalent of \$60,000 in annual sales.

MEAT DEHYDRATION. (The National Provisioner, May): An important food factor in World War I, dehydrated meat appears destined to play an even bigger role in the winning of World War II. A shipment of dehydrated mutton has already been made to Great Britain by an Australian packer. Test work with dehydrated meat has been going on in this country for some time in Chicago, at the government experimental station at Beltsville, Md., on the Pacific Coast and elsewhere. Manufacturers of dehydrating equipment are cooperating, and have been doing work on their own initiative. At least two equipment makers with experience in dehydrating other food products believe they have the answer to the special problems involved in removing moisture from meat. Meat dehydration is not new. It was one of the earliest known methods of meat preservation; its beginnings are lost in antiquity. Today, the problem is far more than one of merely removing the water to produce a product that will keep. Palatability of the finished product - after it has been remoistened and prepared for human consumption - is one of the principal considerations. Then there is the major problem of obtaining equipment that will allow volume production at low handling cost to meet the expected needs of the FSCC and the armed forces. Proper storage of the dehydrated product is another detail awaiting final solution. But good progress is being made all along the line. More is being learned about the stage of moisture removal that can be reached without changing the meat protein. percentage of fat that can be allowed for best results and optimum processing of the meat before dehydration are further points being cleared up by meat researchers.

Conservation of shipping space is the principal reason for dehydration. The dehydrated Australian mutton, in its original form, would have required 15 times more space than did the dried product! As for dehydrated vegetables, the Army has already ordered 18,000,000 lbs. of potatoes, onions, carrots, cabbage, beets, rutabagas and sweet potatoes, Lend-lease demand also enters into the picture. For some time, dehydrated eggs and milk products have been going abroad in heavy volume, to save space. So why not dehydrated meat?

Meat dehydration work in this country has centered largely around beef. In Britain, meat drying work has been under way for a considerable period of time. Some of the British dehydrated product has been brought down to 3.5 percent moisture. Indications are that 10 percent moisture may be the allowable maximum for best results, with 6, 7, or 8 percent resulting in product of best taste and superior keeping qualities. If meat is dehydrated too far, there is the danger of proteins being broken down. Overseas work with meat containing up to 35 percent fat and research in this country on fat percentages show varying results. Indications are that the lower fat percentage makes for the most acceptable product.

Best results are obtained with meat that has been cooked, after first having been processed into small pieces and then desiccated at low temperatures. Drying may be done in either vacuum or air dryers. Preparation of the meat before cooking indicates that grinding to a hamburger consistency makes for a better finished product than meat cut into larger pieces. While the coarser material can be successfully dehydrated, it is not as

easily reconstituted for consumption.

THE PROBLEM OF SYNTHETIC RUBBER -- (Thomas R. Henry, Washington Star of June 7): Out of this war a vast new American industry is being born. It is the making of synthetic rubber. There are, of course, three major interests involved - petroleum, agriculture and alcohol, and the rubber industry. At the moment all are co-operating patriotically, although split by honest differences of opinion regarding the practicability of various processes. At present only one kind of rubber is being considered for transportation, military or civilian. This is the German Buna S. It is the cheapest and most practical of all the proposed synthetic rubbers and can be made almost as good as one pleases - never, however, quite so good as natural rubber - by slight variations of the chemical formula.

About 98 percent of Buna S consists of two basic materials - butadiene and styrene. Neither of these occur in nature, Butadiene can be
made, by complex processes, from petroleum, from alcohol or from coal.
The third source has received little consideration in the United States.
Right now it is a question as to which source is the cheapest, quickest
and most practical. Styrene can be obtained from petroleum or from coal
tar. Buna S can be made of almost any erganic substance in creation. The
first great hurdle is to change these substances into petroleum or
alcohol and the second hurdle is to change petroleum or alcohol into butadiene. Butadiene is, at ordinary temperatures, a light gas the molecule
of which is composed of four carbon and six hydrogen atoms.

All proposed processes whatsoever must pass through these two gates before there is any synthetic rubber. Neither the petroleum industry nor the farm-alcohol industry proposes to make a pound of synthetic rubber itself. Both propose only to furnish established rubber manufacturers with butadiene. Butadiene from petroleum offers one set of problems. Butadiene from alcohol offers an entirely different set. Styrene, out of anything from which it is proposed to make it, has a whole set of complexities of its own.

# ne Daily Digest

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Washington, D.C., June 9, 1942

ROPE FROM YUCCA? (Business Week, June 6, 1942): Yucca Fiber & Products Co., with headquarters in Chinatown, San Francisco, bagan field tests last week of a machine to extract fibers from the leaves of the yucca plant. If successful, a plentiful raw material for rope, mattresses, burlap, and upholstery will become available.

The firm is controlled largely by wealthy Chinese, and has obtained the right to harvest yucca plants from government waste lands in Arizona and New Mexico with shredding machines mounted in mobile units which can be moved from place to place as harvesting is completed.

Sponsors of the process claim that the fiber compares favorably in appearance and texture with other upholstering materials. It is green in its natural state but can be bleached white with chemicals.

TOLLEY TALKS ON FOOD'SITUATION - (New York Times, June 9): H.R. Tolley, assistant administrator of the Office of Frice Administration, addressing the National Association of Retail Grocers and National American Wholesale Grocers' Association in Chicago, urged the grocers to "see to it that we aren't caught as flatfooted by peace as we were by war." He declared that after the war it is certain "the world will be hungry" and "that imposes upon us as victors a definite obligation" in helping end that hunger. He said it could be assumed that in the postwar period the nation's food policies will be directed toward the "permanent elimination of the nutritional deficiencies which our preparations for war have disclosed." Mr. Tolley told the grocers that the supply of food available for distribution among the nation's domestic and civilian population during 1942 and 1943 is likely to be "slightly less" per capita than in 1941.

INTRODUCE BREAD AND POTATO CANDY (New York Times, June 9): A candy made from sweet potatoes and another from three-day-old bread, were among the wartime exhibits at the annual convention of the National Confectioners' Association in New York. Because of the restrictions on use of sugar, candy manufacturers receive only 70 percent of the quantity they received in April, 1941. The industry is actively experimenting with food products containing natural sugars. The sweetpotato/is being introduced at the convention and is scheduled to appear on the market soon. The product is made from the whole potato, to which corn syrup and molasses are added. The bread candy can be flavored with anything from chocolate or fruit to pulverized coffee grounds.

LADDER PAINT (Florists Exchange, May 30); It is quite common to use ordinary house paint on tree ladders, but try plain linseed oil. It is better as a preservative, but also allows clearer vision to show up defects in the wood.

MAINTAINS DIETARY OF 45,000,000 PEOPLE. (New York Times, June 9):
Plans and studies begun some years before the war now enable the British
Food Ministry to maintain the dietary of the nation's 45,000,000 population,
says E.M.T. Lloyd, chief economic adviser to that Ministry, speaking at
Washington. Since the outbreak of the war, when the Ministry of Food first
came into being with a personnel of less than 200, it has grown into a vast
trading concern with an annual turmover of \$2,500,000,000, itself purchasing more than 95 percent of Britain's food imports. It employs a staff of
about 5,000 at headquarters and about 30,000 in 1,500 local food offices.
It is staffed by permanent and temporary civil servents, the latter recruited
largely from the food trades. It prides itself on being first and foremost
a business organization. It is the largest food importing concern in the
world and enjoys the most cordial relations with what is now the largest
food exporting business in the world, the U.S. Department of Agriculture.

SOMETHING COLORED...SCMETHING CRISP. (From USDA "Food For Growth"): Green and yellow vegetables give you vitamin A for good health. The leafy, green vegetables, like turnip greens and collards and spinach, are just about tops in two vitamins, and they also contain iron. They help to keep you from having colds and give you a good color. Have tomatees, an orange, or a grapefruit, or their juices, every day, to help keep yourteeth and mouth healthy. And don't forget white potatees or sweethetatoes, at one meal each day. But when you have a good helping of dried beans or peas, you don't need potatoes at the same meal. All vegetables do not need to be cooked. Chew crisp, raw carnots and celery and cabbage to give your teeth and gums some exercise. Eat raw vegetables in salads. Fruit makes a good dessert....apples, peaches, strawberries, watermelon. How many different fruits and berries have you tasted?

605,200 JOBS FILIED BY U.S.E.S. (Victory, June): More than a half a million jobs in factories, shippards, and offices, and 50,600 jobs on farms were filled by the United States Employment Service during April, it was announced May 27 by Paul V. McNutt, Chairman of the War Manpower Commission. Both agricultural and nonagricultural placements by United States employment offices rose sharply in response to rapidly expanding war and food production efforts. In all, 605,200 placements were made — 19 percent more than in March. Farm placements were 42 percent greater than in March. With the increase in placements, there has been a continuing decrease in the number of individuals available for jobs. By the end of April, the number of job seekers registered in the active files of United States employment offices had dropped to 4.4 million — 4 percent below the previous month, and 14 percent below the number in April 1940.

"AMETRICAN BACON". (Farm For Victory, June): Grandfather liked fat salt pork, He said after the Battle of Bull Run it tasted mighty good, and that when I turned it down with taked beans on Saturday night, I didn't know what was good for me. Today I am keeping house in England, and providing meals for children with big appetites. So, when I learned that "American Bacon" was unrationed, it seemed too good to be true. Gossip had it that it was very queer bacon, had to be soaked for hours, and that there wasn't even a streak of lean in it. It didn't sound like American bacon to me. It wasn't. It was just good fat salt pork. Out came the cook book (long since banished with butter, eggs, and cream) to my resuce. "Fat Salt Pork, Country Style — dip it in corn meal or flour, turn into sizzling hot spider, and fry until golden brown." I wish I could tell my grandfather that a battle has me like fat salt pork, too. —The Outpost, London.

A LIFE-TIME OF EATING. (San Diego Poultry Journal, May 25): In his life a human being consumes a tremencous amount of food. In 70 years he eats 1400 times his body weight — over 200,000 pounds of material. The amount of food he will take includes 6,000 loaves of bread, 3 oxen, 4 calves, 4 hogs, 4 sheep, and 300 chickens. The amount of fish taken will include 2,000 large fish, 3,000 sardines, flounders and herring. He will eat about 9,000 pounds of potatoes; 12,000 pounds of other vegetables; 14,000 pounds of fruit and 6,000 quarts of milk. He will take in also 12,000 quarts of coffee, 1,000 pounds of salt; 5,000 eggs; 8,000 pounds of sugar; 2,000 pounds of cheese; 10,000 quarts of water; and a lot of smaller delicacies.

PROPER FREEZING FOR PORK. (National Butter and Cheese Journal, June):
Trichinae which causes the serious disease, trichinosis, will not survive
in pork treated by a special freezing method developed by the United States
Department of Agriculture. The thickness of the cuts of pork or the inside
dimension of the container determines the length of time the meat must be
subjected to a given temperature to destroy any trichinae that may be present.

Pieces of pork or pork products not exceeding six inches in thickness must be stored for a continuous period of not less than 20 days at a temperature not higher than five degrees F., or not less than 10 days at 10 degrees F., or not less than six days at--20 degrees F., to assure complete protection. For larger pieces or packages up to 27 inches in thickness, the storage period is doubled, except in the case of five degrees when the period is increased to 30 days.

The bureau warns that in many food locker plants temperatures are not kept low enough to insure a complete kill in stored pork.

FROZEN AND DEHYDRATED EGGS. (Butchers! Advocate, June 3): The great increase in egg production during the past two years has been absorbed in an even greater degree through the increase in the processing of quick frozen or frozen canned eggs and the additional amount of eggs being dried or dohydrated. In both of these fields packaging plays a most important part. The majority of quick frozen or frozen eggs before this great expansion in production were packed in 30-1b. tins and a small portion in 10-1b. tins. Because of the changed tin situation since war developments in the Far East have practically cut off the supply, it is necessary that other forms of packaging be substituted or supplemented to the former method of handling frozen eggs. Some of these eggs are now finding their way into 30-1b. cylindrical fiberboard containers and others into 10-1b. packages, either of the cylindrical type or tub package made of fiberboard, or into cartons of the 10-1b. size normally used in the quick frozen foods industry. These of course must have moisture-proof, vapor-proof bags or inner line s and at the same time be air tight. Carrying this thought a step further and with the trend of packaging more quick frozen eggs, it is reported that certain of the governmental agencies purchasing these eggs are now requesting that they be put in 1, 2 and 3-lb. packages, particularly for use under Lend-Lease. Prior to the war emergency dried or powdered eggs were not used in the great quantities that are now being processed. But now is an important factor from a tonnage standpoint. The great importus given to the dried or powdered egg business has been the large quantities purchased for shipment abroad under the Lend-Lease Act. At the beginning of this

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June 9, 1942

purchase plan most of the products shipped were in 300-lb. drums, but it has been found that because of the hydroscopic nature of dried or powdered eggs that this size package was not practical except for large users. These packages will necessarily have to have moisture and vaporproof inner liners or bags, or if they be cups, be so paraffined and capped that they are moisture and vapor-proof. This has caused an entirely new avenue for the packaging of this greatly increased production of frozen and dried eggs.

PACKAGING TO BE STUDIED. (New York Times, June 8): Special item under Philadelphia date line says: What is described as the first detailed study of the relative economies of handling goods in bulk and in packaged form to be undertaken by a public institution will be conducted by the Wharton School of Finance and Commerce of the University of Pennsylvania, by Dr. Harry J. Loman, acting dean, announces. The study, made possible by a grant from the Container Corporation of America, will be conducted by the marketing department of Wharton School with the assistance of other groups in the faculty. Dr. Ralph F. Breyer, associate professor of marketing, has obtained a partial leave of absence to direct the study, which will be under the general supervision of Dr. Herman S. Hettinger, chairman of the marketing department.

PESTS IN STORED GRAIN. (Wallaces' Farmer and Iowa Homestead, May 30): It has become habit to refer to any insect in the grain bin as a "weevil." As a matter of fact, true weevils are found less frequently and less damaging than a number of other insects. The Angounois grain moth, for example, is more of a menace, because it can fly from bin to bin, and in warm regions out to the corn field, to lay eggs before the ears are gathered.

MACHINE THAT TESTS STRENGTH OF SOILS READY. (New York Herald Tribune, June 9): A machine, testing the strength of soils used in the building of dams, levees, airfields or other earth structures, has been completed for the soil mechanics laboratory of the U.S. Engineers office by B. J. Le-Blanc, mechanician of the engineering laboratories of Tulane university. The machine tests soil by measuring its resistance to shearing. The design is essentially that developed a short time ago at the Massachusetts Institute of Technology.

MILK DELIVERIES. (The Creamery Journal, June): Most people in the dairy industry can discern with no great difficulty that the practical end of doorstep delivery of milk is rapidly approaching. A steady and continous change in conditions necessitating door delivery of milk has been causing the evolution and the time is not far distant when milk delivery will be classed as a luxury service only for those who are willing to pay the cost. Not all members and officials of milk drivers unions are able as yet to see the handwriting on the wall.

THE IBERIA FARM: (The Coastal Cattleman, June): A.O. Rhode, superintendent reviews work in breeding heat-resistant animals at the Iberia Live-sotck Experiment Farm in Louisiana. A concluding note says "there are several cattlemen following almost step by step a Brahman Angus breeding program such as that carried out at this station. The station cooperates with these breed in giving technical advice on the breeding program as well as furnishing some our bulls that we think would fit into their crossbreeding work. Brahman Angus bulls from this station are only sold into those-herds that have a similar foundation."

### he Daily Digest

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U.S. Department of Agricuture

Prepared by the Press Service for the use of USDA employees. Views and <del>opinions in these items are not a little of the properties of the </del>

Washington, D.C., June 10, 1942

WEEKLY WEATHER AND CROP BULLETIN. Abnormally warm weath r continued in the contral and eastern portions of the country making the second consocutive week with temperatures far above normal in most sections east of the Rocky Mountains. In the far Northwest there was also a reaction to considerably higher temperatures. Moderate to substantial rains were widespread, covering rather generally Central and Morthern States and much of the South. Heavy falls were reported from extreme southern Florida and in the southwestern Plains States. The Great Plains States where severe drought prevailed during much of the 1930 decade again had substantial rains in practically all parts, making a continuation of unusually abundant moisture for the current year. A continuation of above-normal warmth and unusually extensive adequate soil moisture made an outstandingly favorable week for agriculture when the country as a whole is considered. There is now rather generally ample soil moisture for present needs throughout the country. Some north-central areas, are entirely too wet. Farm work made rather satisfactory progress, except in the wetter northern sections where Spring clanting is still delayed and cultivated fields are weedy.

Winter wheat developed rapidly during the week and maintained a generally favorable outlook. It is now ripening as far north as Maryland. Considerable has been cut in Oklahoma, where plants are well headed. In the central and northern Plains and the Pacific Northwest the outlook continues favorable.... Except for too much rain in some heavy producing northwestern portions of the Corn Belt, high temperatures and adequate moisture made a decidedly favorable week for the corn crop. Planting has been completed, except in some wet northern areas.

In the Cotton Belt in general the week's weather favored the cotton crop. Truck and miscellaneous crops are doing well in most southern and eastern sections, except for an urgent need of rain in southeastern Virginia; local areas elsewhere would be benefited by additional moisture. In some parts of the northern Great Plains continued rain and wet soil were unfavorable, seriously delaying sugar beet thinning and causing some damage. Finit is most excellent.

Meadows and pastures are in good to excellent condition in most sections from the Ohio Valley northward and northeastward. South of the Ohio River more rain is needed in several localities. In most areas from the Great Plains westward, ranges and pastures are in good to excellent condition.

WOODEN TIRES O.K.? (The Creamery Journal, June): The Beatrice Creamery Company of Chicago have conducted experiments with wooden tires for automobiles and trucks for the past several months and according to a recent announcement of C.H. Haskell, president the experiment is a complete success. Such tires are said to have an endurance of 8,000 to 10,000 miles.

FROZEN AND DRIED EGGS. Journal of American Veterinary Medical Association (June) gives text of address by/of Wilson & Co. Excerpts follow: The frozen and dried egg industry is a comparatively new business and has grown in mushroom fashion.... Up to 1925, practically all of the dried eggs used in this country came from China, where there are few large egg drying centers.....It takes about fifteen eggs to make 1 lb. liquid in comparison to ten eggs in this country. In China, they can not afford to give a balanced ration to the hens; they have to scratch for their feed, and as a consequence Chinese eggs have more strength and are darker in color than ours..... In the early days of frozen egg production, the product put into cans was largely eggs that were strictly of undergrade quality which could not be sold in shell form.....It is an entirely different story now, because there are over 300 breakers in this country and the majority of them are packing eggs under extremely sanitary methods..... In recent years, the spray method has been used almost exclusively for drying "whole eggs" and "yolks."....Production has stepped up in the past year from a normal production of 10 million 1b. to a capacity now of over 300 million 1b. per year. Just as an example, the normal consumption of liquid eggs is roughly 300 million 1b., so, to make 300 million 1b. of dried eggs, we must break over a billion 1b. of eggs, which is equivalent to 10 billion eggs or about 30 million cases.....It is surprising to know the many uses there are for egg whites or albumen. They are used in baking powder, candies, meringue or whipping powders, sizing of paper products, dyeing and sizing of printed silks, rayons and cotton materials, glazing of leather products and furs, body pigments for special varnishes, gluing of cork on bottle and jar caps, adhesive for gold leaf, emulsifying pharmaceutical preparations, clarifying beer and wine, marshmallow in bakeries and candy factories, lithographing and photo-engraving, emulsifying agent in alum, and tanning of light leathers. Therefore, one can see the wide expanse of the frozen and dried egg industry. If we hope to keep all of our plants operating after the present demand is over, we shall all have to find new uses for these egg products.

other interesting things, has shown that the average sailor eats more than the average soldier and the average soldier eats more than the average soldier and the average soldier eats more than the average civilian A sailor consumes 1985 pounds of food a year, a soldier 1844 pounds and a civilian 1446.... The American soldier of today is taller and heavier than the doughboy of 1917. War Department figures show that the present soldier is 68.19 inches tall and weighs 151.3 pounds, whereas the average for World War 1 was 67.49 inches in height and 141.5 pounds in weight. Army diets of today, most nutritious in history emphasize generous portions of meat.

/TO USE UNUSED STORAGE. (Victory, June 2): Acquisition of millions of additional square feet of storage space, when and where required by any Government agency, without the erection of new buildings, is embraced in the Office of Defense Transportation's group warehousing plan for 40 of the Nation's largest cities. The expanded scope of the program, under which idle buildings of small manufacturers and other business enterprises will be utilized for storage purposes, was revealed May 23 by ODT Director Eastman, in announcing the signing of ODT's first group warehousing contract with the Federal Emergency Warehouse Association, of Philadelphia.

U.S. CANNED FOODS MAKE HIT IN ENGLAND. (Food Industries, June, by a Liverpool, England, writer): The Lease-Lend agreement may well prove the biggest advertisement the American food industry has ever had on the British market. When the British government released its stock of American foodstuffs with the start of the "points" system of rationing -- so many "points" worth of canned food could be bought each week -- the British housewife discovered that the American food industry is far ahead of English food manufacturers in ideas, nevelties and methods of processing. Our food industry lacks new ideas, initiative and variety in products offered at ordinary consumer's price. There is too little variety in British canned foods, which consist mainly of carrots, beans, peas, soups and fruit. new American packs have made such a hit with the British purchaser that they are preferred to the British packs, and considerable business could be done by the American food industry in Britain with these same goods after the war. Outside of the cereal food industry and the canned corned beef and fruit industries, the American food industry has never competed greatly on the English market. When Americans introduced canned tomatoes to the British public after the last war, these proved very popular, but the Americans failed to follow up their opening, and the goods disappeared from the Liverpool stores, when the doughboy's went home on transports. Canned goods that have been most successful on the British market have been pork luncheon meat and canned milk.

KNOWLEDGE FOR THE FARMER. Leading article in Science, June 5, is address by Dr. W. H. Chandler, as retiring vice-president and chairman of Agricultural Section, American Association for Advancement of Science. Excerpts follow: In 1900 the United States Department of Agriculture, state experiment stations, state agricultural colleges and secondary agricultural schools expended about two and a half million dollars, in 1940 more than a hundred and ten million dollars; this last includes the cost of vocational agriculture in high schools. The ten or fifteen years following about 1900 may, I think, be called the propaganda era in agricultural education .... In the states with which I am acquainted, objectives, smart politics and other heroics have gradually receded, and farm visits, field trials, demonstrations at trial plots and quiet helpfulness at conferences and community center meetings have taken their place. When a county agent finds questions of considerable importance to his constituents that he can not answer, he gets in touch with an extension specialist from whom he thinks he may obtain an answer. If the specialist can not answer, they consult some one in the experiment station or some conveniently located worker in the U.S. Department of Agriculture. If no one has the answer, a study of the problem may be started, probably in both the field and the laboratory, the county agent keeping interested farmers informed concerning progress of the study .... Probably as many well-trained scientists are doing research in the U.S. Department of Agriculture as in all the experiment stations. I am acquainted only with some parts of the Eureau of Plant Industry; workers in these tend to cooperate with county agents and with the experiment stations and avoid bringing confusion and ill-considered practices onto the farms. Every worker in plant science must be interested in this bureau. In recent years it has been searching the group of graduate students in plant science for the very best men in all the different aspects of botany: probably nearly half the well-trained young men in plant science in the country are in it. Being held each to the solution of certain definite problems, these men bring to their work a continuity of effort that is not always possible for teachers or even for experiment station workers with local obligations.

METAL FROM JUNKED AUTOS. (Victory, June 2): Evidence that automobile graveyards are aiding substantially in relieving the Nation's scrap metal shortage was offered by the WFB Bureau of Industrial Conservation. According to the automobile graveyard section of the Bureau, the yards have yielded approximately 350,000 tons of scrap metal from more than 400,000 junked cars during April. This is about 200,000 tons more than the monthly average of scrap metal recovered from them during 1941. The figure includes about 6,000 tons of copper urgently needed for war material.

RESEARCH ON SOY, PEANUT FLOURS. (Food Industries, June): Surplus Marketing Administration, now operating as a division of the newly created Agricultural Marketing Administration, has been actively engaged in research and development work on soybean and peanut flours. The work on soy flour, already widely available, has been principally along lines of most effective utilization, partly to augment food shipments to Britain. One of the most successful results so far has been a development of a meat sausage containing about 20 percent soy flour, which, with its 50 percent protein content, raises the sausage protein to a more concentrated food level. Much of the sausage now eaten in the British Isles contains only about 5 percent protein from its meat content. Addition of this soy flour does not change the sausage flavor or appearance, but would mean a better balanced protein diet. The work on peanut flour has been experimental production, both on expellers and from solvent extracted nuts. Plans have been drawn up for a peanut flour plant based on the expeller process. It is understood that Georgia-Florida-Alabama Peanut Growers Cooperative has funds available to build such a plant.

CELLOPHANE LININGS. Dupont Agricultural News Letter. (May, June):
One of the most important of the new cellophane applications is in the fiber "can," where it adds its protective values and strength when laminated to board. Some of these resemble the familiar cylindrical ice-cream centainer, in others the metal can body is replaced by laminated board and cellophane, with the metal ends attached in the usual way, saving 60 to 80% of the metal. Already hundreds of thousands of these types of packages have been used to pack lard and baking powder. Experiments have shown that many other products now packed in metal containers, such as syrups and greases, powdered foods, coffee, and various oils may also be packaged in this manner. Even concentrated fruit juices have kept fresh for months in such cardboard, cellophane-liped packages.

Another widely used form of package might be termed the "bag-in-box," in which a Lak-proof cellophane bag is formed inside a carton - or fabricated as an integral part of a carton - and tightly scaled morely by heat. Vegetable shortening and quick-frezen foods are among the foods being packaged in this manner.

GOVERNMENT GETS FIRST CHANCE AT 1942 FISH PACK. (Victory, June 2): The WPB May 26 ordered canners to set aside for the Government their entire 1942 pack of salmon, sardines, Atlantic herring, and mackerel. If the full supply is not needed for military and Lend-Lease requirements it can be released for civilian purposes.

### The Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

#### Washington, D.C., June 11, 1942

of the first Farm Bureaus in the state to promote a tire-saving plan in live-stock trucking is the DeKalb organization. Farmers and livestock truckers in the county will conserve tires by marketing their cattle, hogs and sheep so as to eliminate unnecessary trips. Heretofore, truck operators often have gone to market with partial loads of livestock. Hereafter, farmers will wait until the trucker has enough livestock ready for market in the community for a full load. The plan was the result of a meeting called by the livestock marketing committee of the DeKalb Farm Bureau. It was decided that information be sent to all farmers concerning the seriousness and probable increasing scarcity of truck tires, and asking them to cooperate with the truckers in every way possible. Since this plan was adopted, truckers have reported that farmers are not so insistent that odd lots be taken on a certain night, thus allowing the truckers to collect odd lots more at their convenience.

BEEF BLCOD MAY SAVE LIVES OF MOUNDED. (Science News Letter, June 5):
Beef blood from the nation's slaughter houses, now thrown away at the rate
of millions of gallons yearly, may be used in future to save the lives of
wounded soldiers and sailors. Scientists at Harvard University are working
extensively in the effort to prepare beef albumen in such a form as to be
harmless when injected into man. Albumen fights shock because of its ability
to hold the fluid in which it is dissolved within the blood vessels. In
shock, the blood vessels lose their capacity to keep blood and other fluid
inside their walls. Albumen from human blood has already been used effectively
in fighting shock in civilian hospitals. A supply was taken to Pearl Harbor
and used with dramatic results in the treatment of seven patients, two of
whom were regarded as hopeless because of shock caused by extensive burns.

NEW ZEALAND DRIED MEAT FOR BRITAIN. (Foreign Commerce Weekly, June 5): Large-scale production of dried meat for Great Britain is likely to be New Zealand's next wartime industry, says the British press. Negotiations are not complete, but experimental lots already produced are reported to have proven highly satisfactory. It is proposed that the United Kingdom take 25,000 tons of dried meat yearly.

ARGENTINA SUFFERING FROM SHORTAGE OF TIMPLATE for meat-packing industry. (Christian Science Monitor). No timplate is now shipped from Britain owing to a government ban, leaving U.S. as only source of supply. Knowing vital need of feeding fighting forces of Britain and its own country with meat from Argentina to augment home-produced meat and mutton, it is thought that U.S. will endeavor to prevent any further restriction regarding shipment of timplate to Argentina.



FARM LABOR REPORT. (Editorial in Progressive Farmer, June): In Raleigh, N.C., the other day, Master Farmer Bill Hooks was telling us of a change that has taken place in his county...and is going on to a greater or less extent all over the South. "We have many a farmer," said he, "who for years has merely supervised his tenants and farm laborers but who is now rolling up his sleeves and pitching into actual 1942 Victory Farming' from sumup to sundown. Quite a number of them around 50 to 60 years old have said to me in substance: 'I'm no longer a farm supervisor; I'm a plowboy again, operating tractors or other farm machinery or equipment all day long. It surprised me to find I can do it. And since I can do it, I am glad to do it.'"

CANNING PEAS. (American Agriculturist, June 6): It is estimated that New York State will grow 10% more canning peas than last year, bringing the acreage up to 46,000, compared to 42,000 a year ago and a ten-year average of 54,100. On a national basis, the acreage increase is figured at 25.7. It is expected that nearly 10% of the peas in the country will be frozen instead of canned.

RUBBER - A NATIONAL PROBLEM. (Pathfinder, June 13): The military need for rubber, other than for tires, is greater and more extensive than most of us ever dreamed. For instance, a battleship of 35,000 tons requires 150,000 pounds of rubber - enough to equip 2,000 automobiles with four tires and a spare. A medium tank takes 1,750 pounds; a Flying Fortress needs 1,250 pounds; a 10-ton pontoon bridge requires 3,200 pounds; the pneumatic rafts carried by planes use 29 pounds each, and every gas mask must have 1.8 pounds of rubber. The most hopeful source of a large and ready supply of rubber lies in salvaging. Scrap rubber can be used over and over again. It can be mixed with crude rubber to form a compound usable in many military as well as civilian products. Jesse Jones estimated the Nation's stock of scrap at from 500,000 to 1,000,000 tons. It is being reclaimed, he said, at a rate of some 26,000 tons a month, but it is hoped to step up collections to 35,000 tons. Reclaiming plants process old tires, tubes, rubber shoes, hose, bathing caps and various other articles made of rubber.

Arguments over rubber refuse to be downed. On the heels of every official warning that tires must be conserved comes plans for increasing the rubber supply. The latest of these plans include a vast scrap collection campaign and a boost in the synthetic program from 800,000 to 1,000,000 tons a year. Some see a solution to present difficulties in the huge surpluses of wheat and other grains that can be turned into alcohol, the alcohol into butadiene and the butadiene into synthetic rubber. The facts about synthetic rubber are simple. Chemists know they can get a rubber substitute from petroleum, coal, potatoes, wheat, corn, sugar or molasses — almost anything, in fact, that contains the elements of carbon and hydrogen. The only problems are efficient plants and comparative costs. However, no synthetic tire has been produced that is quite as good as tires made from crude rubber. Even 1,000,000 tons of rubber a year is not considered too much for military needs by the Army and WPB. Prospects are slight that civilians will receive any new tires at all and the outlook for retreads is dark.



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DRIED FOOD FOR ARMY. (Pacific Rural Press, May 30): The armed services of the United States intend to purchase 25,000,000 pounds of dried potatoes, onions, cabbage, carrots, beets, sweet potatoes, and rutabagas this season, according to an announcement by Lieutenant-Colonel Paul P. Logan of the Office of the Quartermaster General at a conference on vegetable dehydration held at the University of California College of Agriculture.

PHENOTHIAZINE. Dupont Agricultural News Letter (May-June). Dr. James T. Jardine reviews briefly the record of phenothiazine. "Seldom has any one chemical promised to be as valuable in as many fields as phenothiazine." He lists its uses as an insecticide, bactericide, possible substitute for arsenicals but not yet ready for recommendation, repellant of insects, source of phenothiazone which is a fungicide, highly effective remedy for worms in livestock, and now under test as a urinary bactericide and antiseptic.

PUBLISHING SCIENCE. In Science, June 5, Dr. W.H. Chandler, retiring vice-president of American Association for the Advancement of Science discusses publication of research. He says in part: The system of publishing technical papers, piecing together systems of knowledge about plants, animals or soils, for example, is indispensable for effective aid to farmers. Attempts at graduate or undergraduate teaching or advice to farmers would be hopeless shams without it. A man may be exceptionally well trained when he leaves the graduate school and hopelessly deficient within ten years if he does not have ready access to this growing literature; and, valuable as the county agent is, he would be helpless without the aid it gives him directly. by his own reading, or indirectly, through his contacts with scientists who read it. This literature, I am convinced, could be used more extensively and more effectively by workers and students if it were published in an orderly system of journals each filed in definite places in libraries and coming regularly to the desks of members of societies for special fields such as horticulture or plant pathology..... A periodical such as the Journal of Agricultural Research that publishes papers from many fields usually does not go regularly to the desk of workers; and if it did it would contain such a large percentage of papers in which a worker is not interested that he would not be apt to develop the habit of examining it carefully. Even a journal of this kind, however, has a great advantage over papers published by experiment stations: it is usually edited by men free from close association with the authors. The average paper in the Journal of Agricultural Research seems to me to present its data very much less cumbersomely than the average experiment station technical paper.... Experiment stations could publish much more usefully by buying space in journals, and some experience convinces me that they could save 75 to 90 per cent.of their printing cost for technical papers.

PRICE CEILING LIFTED FROM CANNED CITRUS FRUITS AND JUICES. (War Letter for Agriculture, June 2): Canned citrus fruit and citrus juices have been removed from the general maximum price regulation because analysis by OPA indicated that the ceiling did not reflect the required minimum prices to farmers. Items exempted are: Canned grapefruit and grapefruit juice, orange juice, lemon juice, lime juice, concentrated citrus juices and blended orange and grapefruit juice. Not exempted are such items as canned fruit salad or fruit cocktail of which oranges and grapefruit are ingredients. Should prices increase to a point reflecting proper return to growers, OPA may re-establish maximum prices for the exempted items.

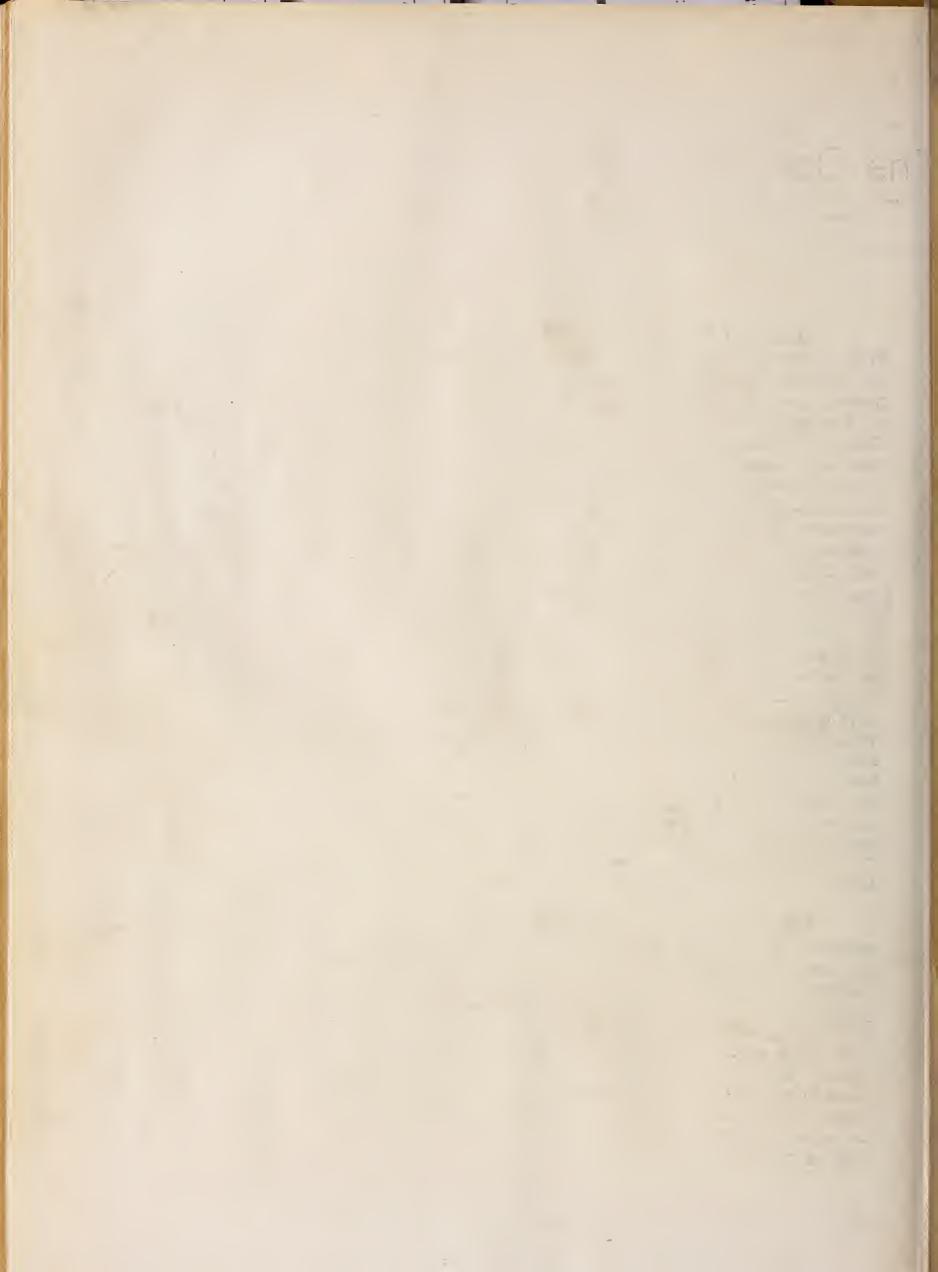


RICE GROWING IN FLORIDA. (Science Service, June 1): Rice growing in the Florida Everglades started only last year as a small-scale effort to provide cheaper chicken-feed for hard-put poultry farmers, may develop into a new major agricultural industry. J.A. Jamison, raised in the rice country of Arkansas, saw that chicken raisers were having a hard struggle on account of the cost of purchased feed. He decided he would try rice growing. Last year he planted about an eighth of an acre with rice in a pond on waste land near Palm City. He got a crop of 50 to 60 bushels to the acre. He is now trying out 18 acres in three varieties. On a commercial scale rice would have to be grown where water could be drawn off at harvest time so that mechanical reapers could get at it.

MPB LIMITS USE OF COPPER IN TRACTOR MANUFACTURE. (War Letter For Agriculture, June 8): Drastic limitation on the use of copper in the manufacture of farm tractors and engine power units, imposed this week by the WPB, is designed to make more tractors available without refinements than would be available if refinements were incorporated into the product. Among other things it means that tractors will have cranks for starting and that they will not be equipped with lights. Under the WPB order no provision is made for the use of copper in starting motors, generators, or electrical lighting equipment for farm tractors, in addition to other parts. However, the farm equipment industry has had its engineers working for several months to develop substitutes for copper, and considerable progress in this direction has been reported.

CARROTS FOR GOOD NIGHT VISION. (Science News Letter, June 6):
Good news for the aviators who don't like carrots and spinach! Stuffing with these vitamin-rich vegetables won't make you see any better at night unless you are vitamin starved to begin with. U.S. Navy's new Night Vision Board says the use of large extra doses of vitamins, more than one would get in a liberal well-balanced diet, will not improve night vision above normal. Vitamin shortages do result in impaired night vision, the Board says, and on submarines, small ships or long craises where adequate supplies of fresh foods cannot be carried, vitamin capsules or pills can be prescribed by medical officers to make up for diet deficiencies and keep the men's night vision always up to peak fitness. The best diet in the world set out daily on your table won't keep your eyes fit for night duty, however, if you always push aside the fresh vegetables, green salads, fruit and milk and eat only meat, potatoes, bread, pie, sweets and coffee, the Navy physicians warn.

BRITAIN'S FARMERS TAKE TO ELECTRICITY. (Foreign Commerce Weekly, June 6): Rural electrification advanced notably in Great Britain in 1941, according to the British press, and more than 50,000 farmers are now utilizing electricity in their work. During the year, many dairies were equipped with electric sterilizers; numerous electric water pumps were installed; and the supply of electric motors was not equal to the demand. Grinding mills and machinery for the preparation of food products grown on the farms are now operated by electricity wherever possible. Electric fences, which have been adopted generally, have been found to be less expensive than other varieties. Horticulturists are using soil-heating cables to speed the growth of seedlings planted under glass.



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Washington, D.C., June 12, 1942

WICKARD REPORTS ON FOOD SITUATION. (Washington report in N.Y Times): With another year of record food production in sight, the United States should be able to feed her Allies and herself with rationing in only a few exceptional cases, Secretary Wickard said today (June 11) after the first meeting of the new Food Requirements Committee. The committee heard from Chairman Wickard a departmental crop report indicating ample supplies, and was assured that military needs would be considered first in their apportionment. At a press conference later Secretary Wickard said the committee had discussed how Army, Navy, Lease-Lend and civilian representatives might be brought together so that the farmers could be told how much to produce and the War Production Board informed how much material would be needed to process, store and ship the crops. There would have to be a compromise between their respective wants, said Mr. Wickard, but he believed that by working together the food problem could be met with "minimum sacrifice" to all concerned. He said, "cheese production has been stepped up almost 50 percent over a year ago. There is a plentiful supply now for the British and ourselves. As for meat rationing, I don't believe it will be necessary to ration pork. Occasionally some butcher shop may not have every kind of pork customers will like. But we are going to have 10,000,000 more hogs coming to market this year than ever before. We are worrying about it. We are asking the farmers to ship them early. The time may come this year when a farmer will have to get a permit to ship his hogs. Any shortage of pork will only be temporary and meanwhile we will have plentiful supplies of beef, lamb, poultry and eggs, all the high-protein foods." Mr. Wickard said his department was studying the dehydration of pork and beef to permit shipping economies. Mr. Wickard said he hoped that the food program would involve a minimum interference with the normal distribution channels in the United States.

BEES BY EXPRESS. (Science Digest, July): Traffic in live bees exceeding 310 tons a year from various points in the Southern States is noted by the Railway Express Agency. Forwarded in specially designed "cages;" with 5,000 bees to the pound, over three billions of these insects were transported last year. These Southern bees were consigned to several hundred different destinations in the North. Part of the spring demand for new bees came from orchardists seeking to assure the pollenization of fruit blossoms. The largest proportion, however, went to individual honey producers. Live bees are not usually accepted for transportation to destinations which cannot be reached within six days. Express handlers are constantly cautioned to provide full ventilation and as little disturbance as possible while moving on trains and in trucks.

VITAMINS AND COLDS. (Science Service, June 6): If you are eating a reasonably good diet, taking extra vitamins in the form of pills or other preparations will not ward off colds or other infections of the upper part of the breathing tract, according to studies reported by Dr. Donald W. Cowan, Dr. Harold S. Diehl and Dr. A.B. Baker, of Minnespolis, at the meeting of the American Medical Association at Atlantic City. Tablets of synthetic vitamin C, the anti-scurvy vitamin of citrus fruits, were given daily to a group of 183 University of Minnesota students throughout the "cold season" of 1939-1940. Candy tablets of the same size, shape, appearance and taste as the vitamin C tablets were given to another group of 194 students. Students getting the vitamin C tablets had 1.9 colds per person during the season, as compared with 5.5 colds per person the previous year, a reduction of 65%. The students getting the candy tablets, however, had a reduction nearly as great, 62.7%, in the number of colds over the previous year.

FOODS SELF-REFRIGERATING ON VOYAGE TO ENGLAND. (Science News Letter, June 6): Perishable foods are now being made to refrigerate themselves on American cargo ships, using an ingenious plan made public by the United States Department of Agriculture. Lard, chilled to a zero temperature or lower, is the refrigerating agent. By lining the holds of ocean-going ships with insulating material, packing large containers of the refrigerated lard to form a floor and walls around perishable foodstuffs, placing more lard over the top, and adding a final cover of insulation, the shipment is kept safely cold. The system has been adopted to keep Axis submarines from stopping shipment of perishables to United Nations ports by systematically sinking refrigerator ships. It has the added advantage of saving space.

A CHANGE IN HOG MARKETING NEEDED. From a talk to the Nebraska Stock Growers' Association, Lexington, Neb., June 12, by Fred S. Wallace, Chief of the AAA -- At the last minute Mr. Wallace could not attend, but his talk was read for him. -- This tremendous Food for Freedom Program had its start a year ago. Today the wartime job of live stock growers is to increase their slaughter -- in other words, get more meat to market -- 8 percent more beef and veal than last year, and 14 percent more hogs. I'm glad to report that a fine job is being done in meeting these goals. From now on, it is going to be harder sledding. One of the worst troubles will be transportation, especially for hogs. Trains are overloaded now, transporting military equipment. And even though livestock is vital too, it's hard to find room for it. And you know too well the trucking situation. The other livestock marketing problem will be overcrowded packing plants. This year we've got to change our marketing, especially of hogs. We've got to spread it out. If we wait and do most of our marketing in December and January, we'll bog down every stockyard in the country and we'll set up the worst packing plant bottleneck there's ever been. The way to spread out our marketing is by changing our feeding. We can start our heavy run of hogs to market earlier. The main idea is -- let's not flood the market during the December and January peak seasons.

AMA AND OPA TO STUDY MEAT COSTS. (War Letter for Agriculture, June 1): The Agricultural Marketing Administration of the U.S. Department of

Agriculture will cooperate with the Office of Price Administration in a new joint meat study. It will include a further survey of costs involved in meeting Government specifications on meat products designed for use of the armed forces and for the lend-lease requirements of our Allies.

USES HORSES, WOODEN TIRES. (Dairy Record, June 3): One company does not propose to be caught napping. It is going back to horses and its converted "wagons" will have wooden tires. The company is the Beatrice Creamery Co., whose president, C.H. Haskell, says that by July 1 55% of the retail routes will be served by the horse-drawn vehicles. The change to wooden tires was started April 1 at the company's Waukegan, Ill., plant. So far as known, this is the first instance of a major concern in a home delivery industry adopting wooden tires as standard equipment when rubber tires wear out. The idea was originated soon after it became evident that milk delivery was not to be favored with tires. The wooden tires consist of a series of V-shaped oak blocks with the bottom of the V cut to fit the channel of the wheel. Before being mounted on the wheel, the wooden tires are soaked in hot linseed oil and paraffin at about 140 deg. for 16 hours. White lead is used to fill the cracks between the blocks when they are mounted. Forty blocks are used to make a "tire" for a wheel the size of those used on Chevrolets, Fords and Plymouths. The blocks are bolted through the rim of the wheel and it is ready for mounting, the same as a rubber-tired wheel. It is estimated that the wooden tires will last not less than a year, which represents the 8,000 - 10,000 miles the company ordinarily gives its vehicles. While not as quiet as a rubber tire, they are far quieter than the steel tired wheels used on old-fashioned delivery wagons. Nails and sharp stones, the bane of motorists, offer no problem to the wooden tire - in fact, if it picks up nails and bits of gravel it acquires a more wear-resistant surface. The wooden tires represent the final step in the Beatrice company's conversion program. When the change is made from motor-driven to horsedrawn vehicles, rubber tires are placed on the wagons. Mr. Haskell estimates that the rubber tires will last twice as long on the horse-drawn vehicles because of the slower speeds, the saving on rubber in starting and stopping, and the greater difficulty of overloading the wagons. When the tires are worn out, they will be replaced by wood.

SPUDS FOR HOGS. (Western Livestock Journal, May 15): Quantities of potato meal have become available in the last few years for livestock feeding. Feeding trials conducted in Kern and Tulare Counties, Calif. indicate that this product may be successfully fed to hogs as a part of the ration. When dried with the peelings on and then ground, the product has a chemical composition similar to barley. Potato meal secured by the California Experiment Station in the fall of 1941 contained 9.3% protein, 2.4% fiber and about 13.5% water. An experiment was conducted at the University Farm during the winter of 1941-42. From the results it may be concluded that potato meal may be fed safely and that it may be substituted for a part of the barley in rations for fattening pigs. When fed at a 10% level, it resulted in fast and economical gains. The results were not so good when fed at 25% and 40% levels.

AUSTRALIA - LIKE U.S. - IS BIG FOOD PRODUCER. (The Index - Summer Issue): Wool and wheat are Australia's principal farm products. Long the greatest exporter of wool, the country produces in normal years about onefourth of the world's output. Australia has approximately 130,000,000 sheep as compared with not quite 55,000,000 in the United States. Nearly half of these are in New South Wales, but every State has some sheep. Preliminary figures place the 1940 Australian wool clip at 1,128,141,000 pounds. Australian wool is of high quality and in peacetime it is purchased by practically every country in the world. Mutton is also one of Australia's important products. The country's 1959-40 wheat crop was the greatest in recent years, amounting to 210,284,000 bushels. Other important farm products of Australia include hay, oats, potatoes and maize. Some sugar cane is produced, most of it in Queensland, which also grows most of the country's corn and nearly all of its cotton. Citrus fruits, grapes, peaches, apricots and other fruits, including large quantities of apples, are grown both with and without irrigation in almost all States. Although every State has a dairy industry, and the country is a large exporter of dairy products, almost . half the cattle in Australia are in Queensland. Much beef and pork are produced on the continent. Horses are relatively numerous in Australia, which has nearly one-sixth as many as there are in the United States. In general, Australia is impregnable in food resources, being an exporter of many basic products, with imports consisting mainly of tea and other tropical products and luxuries. Among other vegetable products which must be imported, however, is crude rubber, essential to the war effort.

COUNTRY DOCTORS NEED SELF-RELIANCE. (N.Y. Herald Tribune, June 12):
Allan Roy Dafoe, former physician to the Dionne quintuplets, told a (Winnipeg) service club today that the old horse and buggy doctor still knows a lot of tricks that the young fellows never heard of. "They become so accustomed to working with modern hospital facilities that they have no initiative when they have to make do with whatever is handy," he said. "Many's the time I've had to go out to the barn and pull a hair out of a horse's tail to use for a thread to sew up an operation. I don't recommend it, but sometimes that is what I had to do."

FOR QUALITY CHEESE. (Hoard's Dairyman, June 10, Editorial): The National Cheese Institute, an organization to improve the quality and extend the marketing of cheese, recently held its annual conference in Chicago. Reports of committees on research were made and ways and means to improve the quality of cheese were discussed. It is recognized that the present demand for cheese is not likely to extend for a long period after the war, but there is a chance if a quality product is made, to step up cheese consumption not only in this country but in foreign lands. The quantity of cheese made in recent years is about 500,000,000 lbs. annually and the request of the government for more cheese puts the estimated production of cheese at one billion pounds for the current year.... The meeting leads us to believe the cheese industry is alert to its problems and has taken steps to improve the quality of cheese to meet conditions after the war and to extend the marketing of cheese. It was the general conclusion that quality of cheese is the key to larger cheese consumption.



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Washington, D.C., June 15, 1942

PERISHABLE SUBSISTENCE FOR ARMY. (Ice and Refrigeration, June): From address by Maj. E.F. Shepherd, Q.M.C.: Fresh frozen foods are purchased by Quartermaster Market Centers and are being used more and more by the Army. Some firms are conducting surveys and planning to put up a special pack for Army use in order to simplify the breakdown and issue to the individual kitchens in the field. During September our Chicago office purchased over one and a quarter million pounds of eviscerated fresh frozen frying chickens for the soldiers on maneuvers in the Carolinas. These chickens were moved to the maneuver area in refrigerator cars and issued while hard frozen for consumption the next day. The experiment was a success and the troops were agreeably surprised to get fried chicken in the field. The Army is also using over tow million pounds of boneless frozen beef per week. The carcass of the beef is boned and packed into 60 pound packages of steaks, roasts, stew and hamburger. In this manner all troops get their proportionate share of steak, roasts, stew, etc. Boneless frozen beef has proven of inestimable value to the Army. It weighs only about two-thirds as much as carcass beef, it takes up only about 35% as much space and it contributes materially to the overcoming of the serious problems of feeding troops in the field with no refrigeration available. It is my firm opinion that practical refrigerating engineers are going to contribute more and more to increasing the nutritional and food value of the soldier's ration as your laboratories and experimentors continue to uncover and develop new uses for refrigeration.

FARM EQUIPMENT ESSENTIAL. (Better Farm Equipment and Methods, May-June): Dr. J. Brownlee Davidson, Head, Agricultural Engineering Department, Iowa State College, at the recent "War Conditions Clinic" in Chicago, said that "the genesis of the magnificent resistance that the Russians have made was the introduction of modern farm equipment and engineering methods into Russian Agriculture. "This appears to me to be one of the most significant things that has happened since the beginning of time, and as we look back at this situation it will be considered one of the most historical facts in the entire history of farm equipment. "The farmers' problem is essentially a matter of labor. A large number of neople have been taken out of Agriculture, one estimate being 600,000; farm boy's make up a large part of our military strength. This requires considerable adjustment in the available supply, but a good farmer cannot be made in a few years and a good farm worker cannot be made over night. One solution might be the use of larger units of power; the use of retired farmers in handling live stock; younger boys and even women and girls."

NEW ATTITUDE NEEDED. (Dairy Record, June 3): Too many milk producers and processors, the idea of a Food Administrator is abhorrent. They insist that the industry will receive consideration only as long as it is under the control of the Secretary of Agriculture. There is merit in this contention, but the fact remains that the present situation is not entirely satisfactory, either. If milk is to be produced, manufactured and distributed, it must have equipment, and it is not logical to expect that proper consideration will be given to this need as long as authority is vested in a department which thinks almost entirely in terms of munitions, and only reluctantly in terms of food as sinews of war. Such concessions as have been made by WPB have been wrung from it by the courage and persistence of the industry's representative on this board, Mr. Clyde E. Beardslee. But there is something wrong about a system which requires that the services of an able man should be devoted so largely to exacting concessions. There is need for a greater recognition of the part food must play in winning the war.

SORGHUM-SOYBEAN SILAGE. (Hoard's Dairyman, June 10): To beat the shortage of molasses for making legume silage. Calvin Brown of Chester County, Pennsylvania, last year used a combination of soybeans and sorghum cane seeded broadcast with a standard grain drill. He got such good results that not only will he follow the same practice this year, but many of his neighbors in this highly developed dairying section in southeastern Pennsylvania will adopt the same combination. With molasses practically out of reach for making silage, Mr. Brown's bean and cane crop may prove the answer to the legume silage problem over a wide area. It may even replace the use of molasses in the post-war period, because the overall cost is low and the mess of handling molasses is eliminated.

CHILDREN IN THE WARRING COUNTRIES. (Editorial in Medical Record, June): .... Nourishment, especially of young children, has been placed on a scientific basis during recent years.... If young children do not have suitable food, that is, food containing a sufficiency of vitamin C, they are apt to develop scurvy or a scorbutic tendency if this lack continues for any length of time. Naturally, the way to prevent this or to combat it when incurred is to give food containing vitamin C, the best antiscorbutic remedy. Fresh orange juice is admirable. But in the countries at war, in Britain, for instance, it is impossible to obtain oranges or lemons, except in the most meager quantities. In a Wartime Nutrition Bulletin, issued by the Children's Nutrition Council, the problem of infantile scurvy is discussed To prevent this scurvy, children need thirty milligrams of vitamin C a day. The cessation of imports of citrus fruits richest in this vitamin makes the problem of finding substitutes of vital importance and as one solution the council recommends that the entire crop of black currents in Britain, the richest in vitamin C of home grown fruits, should be reserved for the production of a puree for young children.

MAKING THE MOST OF MACHINERY. (USDA publication Farm Machinery Goes to War): Uncle Sam has promised farmers as many tools as can be spared from our metal supplies. He's agreed to the manufacture this year of four-fifths as much farm machinery as was sold in 1940. And he's going to allow

the manufacture of half again as many repair parts as farmers bought in 1940. Maybe it's still not as much machinery as some of us would like to have; but it's all that can be spared from planes and tanks and guns. The steel saved from the one-fifth reduction in number of machines is enough to make more than 5,000 30-ton tanks. And together with the implements already on farms, it should be plenty to grow the food and fiber required for Victory. That is, it should be plenty if we take care of it, and plan ahead to keep every machine busy, and work together with our neighbors.

DUST BOWL BECOMES BEEF BOWL. (Saturday Evening Post, June 6): The Dalhart, Texas, Texan recently conducted a contest for a new and more fitting title for the area once called the "Dust Bowl". The award was given to a man who suggested the Beef Bowl. Previously, the newspaper had offered a \$50 reward for the identity of the individual who first devised the name "Dust Bowl". As was to be expected, nobody appeared.

DR. FREY HONORED. (Hide and Leather and Shoes, June 6): The W.K. Alsop Award for outstanding research work advancing the art or science of leather manufacture was made this year by the American Leather Chemists Assn. to Ralph W. Frey of the U.S. Department of Agriculture for his research work on the use of pine bark in tanning. As Dr. Frey was unable to attend the convention because of illness, the award was accepted in his behalf by Dr. J.S. Rogers also of the Agriculture Department .... Dr Frey, has been connected with the Department of Agriculture for more than 25 years, is at the Eastern Regional Research Laboratory, Philadelphia. Since 1918 he has been in charge of investigational work on hides, skins, tanning materials, and leather, and his work in this direction has attracted wide attention among scientists in the leather industry..... In the field of fundamental and technical research, Dr. Frey has conducted outstanding experiments and studies which proved that atmospheric pollution is the determining factor in the deterioration of book-binding leather ..... His studies, indicating that chrome or combination vegetable-chrome tanned leathers are more resistant to atmospheric pollution than straight vegetable tanned leathers, have been responsible for the displacement of straight vegetable tanned leathers used heretofore by the Government Printing Office. He directed C.C. Smoot's survey and experimental work which demonstrated the practicability of using waste bark from western hemlock for the manufacture of tanning extracts. In addition to his work with pine bark, Dr. Frey has in recent years reported on programs for the development of other domestic tanning materials.... In order to revivify the soil of areas blighted by dust storms of a few years ago, the planting of various species of sumac, canaigre, etc., was proposed. Inasmuch as some of these trees and shrubs grow rapidly and have extended roots, they would furnish not only a substantial crop of valuable tanning materials, but would also contribute toward the accumulation of new top soil.

THE REASON FOR ARGENTINE BEEF IMPORTS. (From a talk to the Nebraska Stock Growers' Association, Lexington, Neb., June 12, by Fred S. Wallace, Chief of the AAA -- At the last minute Mr. Wallace could not attend, but his talk was read for him.) Last year we imported about 5 percent of the beef used in this country -- only 5 percent. Practically all of it was canned beef. Most of this was high quality meat that we wouldn't can in

this country, but would sell over the counter as roasts and steaks. We don't really have any canning beef in this country, because anything left over goes into cheaper cuts and hamburger. Our soldier and sailor boys certainly deserve good meat. Very often, canned beef is the only kind they can take along with them. If we can't get the good canned beef from our American packers, then let's give them some high quality canned stuff from Argentine during these war times. There's even more than that to this Argentine beef situation. We are at war with the worst crowd of madmen in the history of the world. To win, we are going to need all the help we can get. South America can be a friendly neighbor and a great ally. If we try to live alone and refuse to do business with South Americans, we practically force them to go over to the camp of the enemy — for they have to live too.

AUSTRALIA - AN URBAN NATION CLOSE TO THE SOIL. (The Index - Summer Issue): Facing a common enemy, Australia and the United States have become more closely linked than ever before by the war in the Pacific. The ties of blood and heritage between the peoples of the United States and Australia justify in many ways such affiliation. Pioneers and experimenters by nature they are much alike in their independence of thought and action. Their governmental systems have many points of similarity. Yet, with all these and many other mutual interests, it is not alone the 5,500 miles of ocean and their positions on opposite sides of the equator that have made their relationship so far that of distant cousins. Investments and commerce have connected Australia much more closely with Great Britain than with the United States, while the agricultural export products of the United States and Australia have been largely competitive, as the result, at least partially, of certain geographic likenesses. Australia's area is approximately equal to that of the United States and even their shapes roughly resemble each other. In fact, Australia is very like the United States without its mighty Mississippi Valley. The lack of such central agricultural and industrial basin has kept Australia largely a seaboard country. Its population, its industry and its agriculture are clustered along the coast. Between the fertile, populated seabcards stretches a vast expanse of desertlike region with scattered lakes that are dry during much of the year. Approximately two-fifths of the entire continent is arid, with one-fifth too dry even for grazing while one-fifth is fair grazing land except in serious droughts, which are not uncommon. About one-third is good stock-raising country. Only about one-fifth, chiefly in southeastern Australia, is considered by one of the country's leading geographers to be good farming land. and in the average year more than a third of this receives less than 20 inche of rainfall. Some 3 percent of Australia is tropical with rainfall throughout the year and, hence, suitable for intensive cultivation of the kind prevailing in the Netherlands East Indies, the Philippines and other Pacific land areas. These climatic features are important to an understanding of the country because they determine where the people live. Australia is. paradoxically, an urban nation which is essentially close to the soil.

### he Daily Digest

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Communication and the Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture. 

Washington, D.C., June 16, 1942

PRODUCTION OF ICEBERG LETTUCE IN FLORIDA. (Market Growers Journal, June 15): It is due to scientists of the U.S. Department of Agriculture that new strains of Iceberg lettuce have been developed better suited to Florida's climatic conditions and with a higher tolerance to heat without bolting and seeding. The Iceberg lettuce crop has come mainly from the West. But now Florida growers are breaking into the picture with new strains of crisp-head lettuce. Several hundred acres of rich muck land, once a part of the Florida Everglades, are now being cultivated to Iceberg lettuce. They are growing principally the strain Imperial 144, developed by the Government experts. Staff members of the Florida Experiment Station agree that of all commercial varieties of Iceberg lettuce Imperial No. 44 has exhibited the greatest tolerance to high temperatures.

COTTONSEED MEAL PRODUCTION. (American Fertilizer, May 23): shortage of chemical nitrogen has focussed interest on the various organic forms of this fertilizer element. During the nine months, from August 1, 1941 to April 30, 1942, production of cottonseed cake and meal has amounted to 1,620,649 tons, as compared with 1,780,804 tons for the same portion of the previous crop year. Shipments during the same period of 1941-42 totaled 1,473,690 tons, leaving a supply on hand, April 30, 1942, of 311,403 tons. Production of hulls during the same months amounted to 921;632 tons.

HOME FRUIT GARDEN. (USDA Leaflet No. 222): The National Nutrition Conference, held in Washington, D.C:, November 1941, urged Americans to eat more fruit. Well-ripened, sound fruits increase the healthfulness, variety, attractiveness, and palatability of meals. Despite the relatively large available supplies of fruit, many families, especially on farms, do not have adequate quantities in the diet. In almost every part of this country certain fruits that usually require little or no spraying can be grown successfully in farm or suburban fruit gardens. Fruits needing spraying are not so well suited for home production. By properly selecting the kinds and varieties of fruit for home planting a succession of fresh fruit of high dessert quality can be available during much of the summer season, and surpluses may be canned, preserved, dried, or, in some cases, frozen for use during other seasons. Such home consumption of fruits, together with purchases of kinds that cannot be grown successfully, should improve the diet and general health.

N.Y. LAW TO AID PULLORUM TESTING. (The Poultrymen, June 12): New York State has an official program for control of pullorum disease, Governor Lehman having recently signed the bill appropriating \$5,000 to set up the I have the second of

program. The program, for which poultrymen have been working for the past three years, will, as the result of state financial assistance, result in a greater impetus to the work. Total cost to the poultrymen who take part in the program is estimated at less than two cents a bird. The program is under the direction of the State Department of Agriculture and Markets which will work with the U.S.D.A.

NEW MARKETS FOR MORE MILK. (Rural Electrification News, June):
Imagine a mountain of barrels containing 260 million pounds of powdered milk, a dock piled high with nine million pounds of cheese, a fleet carrying 58 million cases of evaporated milk! United States dairy farmers have been asked to produce enough milk to make these staggering quantities of manufactured dairy products for shipment abroad. They may be asked for much more, if needs of the United Nations increase. In addition, Army camps and our civilian population demand constantly growing quantities of fluid milk of high purity and freshness. More milk is being used in industry, for making paint, glue, plastics, insecticides, and even textile fiber. Markets for milk are increasing day by day. But since war will not wait for our dairy herds to be built up, these huge demands must be met by existing herds.

BUYING BEEF BY GRADE. (From USDA Miscellaneous Publication No. 392): The price of beef is not always an accurate indicator of quality. Unless the grade name is stamped on the product or shown by some other means, the consumer has no way of identifying either the highest grade or the highest grade obtainable for the price paid. In addition, most consumers are not good judges of meat; in many cases they order by telephone and accept what the butcher delivers, hoping for the best. This need not be so. possesses an unusually wide range in quality. But the meat-grading and stamping service of the Government gives consumers a means by which they can select beef with reasonable assurance that they are getting the quality or grade of beef that they want and are paying for. Government experts men who know beef -- carefully grade the meat while it is still at the packing plant. With a roller stamp they mark the carcass so that the grade name appears on all the principal cuts. The U.S. official grades of beef are "Prime," "Choice," "Good," "Commercial," "Utility," "Cutter," and "Canner." The "Cutter" and "Canner" grades are seldom sold in retail meat shops. So consumers need remember only the five grades, and their relative position in the grading scale.

SECRETARY HEADS FOODS REQUIREMENTS COMMITTEE. (War Letter for Agriculture, June 8): A Foods Requirements Committee with control over production and allocation of all civilian and military food supplies has been established within the War Production Board under chairmanship of Secretary Wickard. The new committee, named by Donald M. Nelson, Chairman of WPB, will determine civilian, military, and foreign food requirements and has authority to step up or limit the domestic production of foods as well as the importation of foods and agricultural materials from which foods are derived. Food rationing remains in the hands of the Office of Price Administration.

In addition to Secretary Wickard, the committee will consist of

representatives of the State, War, and Navy Departments, Office of Lend-Lease Administration, Board of Economic Warfare, and the MPB Divisions of Industry Operations, Materials and Civilian Supply. The Department will be responsible for: (1) Increasing or limiting domestic agricultural production in accordance with decisions of the Committee. (2) The earlier stages of food production in general. (3) The importation of foods and agricultural materials from which foods are derived. These powers have been delegated to the Commodity Credit Corporation within the Department of Agriculture by the Board of Economic Warfare. (4) The formulation of programs for conservation of critical foods or agricultural materials from which foods are derived.

FOOD DISTRIBUTION, (From What Food For Freedom, by T. Swann Harding, U.S. Department of Agriculture): During the post-war period there will be much readjustment.... If it is wise the food industry will also learn some new tricks. It will find out how to process and distribute food products much more cheaply and efficiently than it does now. It will deliberately cater to the requirements of low-income groups by packaging honestly labelled substandard but fully nutritious foods at low prices. It will discover new sanitary methods of distributing many products in bulk that are now sent out in unnecessarily expensive packages. In short, the food industry will become truly a service institution as it should be. It will learn to seek profits in narrow margins and quick turnovers and to avoid superfluous services and activities. That is the food picture as the Government sees it. In a way it does seem to menace some of the profits of the druggist and the pharmaceutical manufacturer. For it regards food as the proper source of many essentials now so often prescribed or used in self-medication as drugs. Furthermore, the program will produce a far healthier populace much less in need of medication than ever before.

WINDBREAKS AND SHELTERBELTS, (From SCS Conservation Folder No. 12): There is a place for some tree and shrub plantings in every part of the northern Great Plains to protect the homesite and feed lot or cultivated fields and growing crops, to control gullies and stream banks, or as a wood lot. A windbreak to protect the home, livestock, garden, and orchard is one of the most valuable improvements for a farm or ranch in the northern Great Plains. It breaks the winds force, traps snow, supplies wood and posts, affords a home for wildlife, and beautifies the place. Protected by a windbreak, a farm home is more comfortable and can be heated more easily and cheaply. In many places a farm garden is impossible without windbreak protection to check hot drying winds or increase soil moisture by drifting snow on the garden site. Windbreak-protected feed lots and barnyards are more comfortable for both man and beast in winter, and livestock can be kept in better condition with less feed. Field shelterbelts help northern Great Plains farmers do two major jobs -- reduce soil blowing and conserve moisture. They check the force of destructive winds which cause soil drifting, blow out seed, or blast young crops, and also modify the hot south winds which dry out the soil and wither growing crops at critical stages in their development. Shelterbelts, primarily for the protection of cultivated fields, can be established successfully on irrigated lands and on the lighter soils wherever the continuous production of agricultural crops is feasible, but on heavy soils where normal precipitation is less than 17 inches, field windbreaks are not generally successful unless they are of the hardiest species, get special care, and receive supplemental water which might be diverted into the planting from roadside ditches, natural drainages, or contour furrows and terraces.

DO GRADES OF COTTON REFLECT CELLULOSE DETERIORATION? This is the title of a mimeographed report just issued by AMA and EPI. Cotton grades have significance in mill practice in terms of relative cost of raw materials, yield and quality of products, and costs of processing and finishing. However, there is little information as to how cotton fiber quality varies with the grade of the raw cotton. For the crop year 1937, samples from all cotton-growing regions except those in the far western part of the United States were examined for cellulose content and comparative deterioration of the cellulose. The regions are those centering around Atlanta, Ga.; Memphis, Tenn.; Dallas, Tex.; and Austin, Tex. The percentage of cellulose in the fiber showed relatively little variation with grade except in the Spotted and Tinged cottons of the Austin area. cellulose content of cottons from the two eastern regions, however, was noticeably higher, as a whole, than that of the cottons from the two Texas areas.....More work is needed to show the relation between grade of cotton and cellulose deterioration, and whether it is sufficient to be of economic or commercial importance.

TREES RESTORE WASTE LAND IN GULLIES TO USEFULNESS, (From SCS Conservation Folder No. 14): Much of the wasteland to be found in the northern Great Plains has been made waste through the formation of gullies and "cut banks" along drainages. Year by year, raw gullies are cut deeper and uncontrolled stream beds are broadened. Many fertile acres are lost in this way, fields become divided, and the value of the farms gradually decreases. The first step to control a gully is to divert the water flowing into it, then to surround it with a fence to keep livestock away, since continuous grazing destroys the protective vegetation and thus keeps banks raw and easily eroded, encourages the development of side gullies, and accelerates the sloughing off of steep banks. However, unused land becomes wasteland. One of the best ways to restore such wasteland to the status of profitable producing units is to plant them to trees and shrubs, thereby controlling erosion and at the same time establishing windbreaks for the protection of adjoining fields, wood lots capable of producing posts and fuel wood and perhaps a few sawlogs, and wildlife refuges which will furnish food and shelter for insect-eating and upland game birds. Possibly not all parts of the enclosed areas can be planted to trees and shrubs. There may be some spots which are covered with a good sod of native grasses, which should not be disturbed.

ILL. PLANT CRUSHES 7,000 BUSHELS SOYBEANS DAILY. (Bloomington Pantagraph, June 7): A new high record was established in May at the Gibson City (III.) plant of a soybean company, with 7,000 bushels of beans crushed each 24 hours, 9,000 gallons of soybean oil produced daily, and 160 tons of meal produced daily for feed mills.

U.S. Department of Agricuture

### he Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., June 17, 1942

WEERLY WEATHER AND CROP BULLETIN, June 17: While the progress of most crops continued satisfactory, there was too much rain and cloudy weather over large areas of the interior and in some southern sections which hindered cultivation of row crops, caused more or less lodging of small grains, and spoiled considerable cuttings of alfalfa hay. Also the reactions to unseasonably cool weather from the Mississippi Valley northwestward retarded growth generally. Some areas had record low June temperatures and in more north-central sections tender vegetation on low grounds was frosted. In general, soil moisture is ample to super-abundant in nearly all sections from the Great Plains eastward, although a few localities, principally along the coast of the middle Atlantic area, are still too dry. However, with continued absence of rainfall in the far Southwest, some sections there now need moisture badly with drought severe locally. Less rain was favorable from the upper Lake region westward, although there was again too much in parts of Montana.

Despite cool, cloudy, wet weather, winter wheat developed rapidly during the week, with harvest progressing in southern portions of the belt. Some lodging by wind and rain is reported from many scattered areas, but in general, progress of the crop continued satisfactory... In the Spring Wheat Belt the weather continued favorable and the outlook remains promising. In Minnesota wheat is normally advanced and is reaching the heading stage in South Dakota and stooling heavily in North Dakota. In Montana, where jointing is reported, dry, sunshiny weather would be helpful.

While corn made fairly good growth, cultivation was retarded by wet soil in many parts of the belt and warm, sunny weather is rather generally needed. There was an unusual number of weedy fields and need of cultivation in many heavy-producing sections; also of waterlogged lowlands. However, fields are clean and well cultivated in much of the southern Great Plains and conditions were favorable for field work in most of the middle Atlantic area. In the important producing sections of the upper Mississippi Valley, especially Iowa, progress of corn was fair, with plants ranging from 4 inches to more than knee high.

In the Cotton Belt temperatures ranged from about normal in the south and east to much below normal in the northwest. Precipitation was substantial to decidedly heavy in most sections. While growth was mostly satisfactory, in general, less rain and more sunshine are needed as recent weather in many localities has favored weevil activity. There was too much rain favoring weevil activity in parts of the southeast, but otherwise in the eastern belt conditions were rather favorable. Plants are beginning to bloom as far north as southern South Carolina.

Firectric brooders war all. (Rural Electrification News, June):
Farmers are finding that electric brooders increase the value of their poultry and hog enterprises; save the life of their chicks and hogs; reduce the need for scarce, costly farm help. Furthermore, electric brooders do all this at extremely low cost. The University of Kentucky made a 2-year study of 117 electric brooders in use in 29 Kentucky counties. They found that farmers were spending on the average, only 2½ cents per kilowatt-hour for brooder current, and were wiring their brooder houses for an average cost of only \$11.50. All 117 brooder users in the 29 Kentucky counties expressed enthusiasm. They had found that chicks grew and feathered better under electric light, and that considerably fewer chicks were lost. Kentucky's experience has been matched by individual users in virtually every REA-energized area.

TEAMWORK ON THE FARM. (Christian Science Monitor, June 6): When a farmer of Rockford, Ill., was called into the Army recently, the Guilford Hope Grange, to which he belonged, rented his farm and will operate it on a cooperative basis. Persons with a rural background will recognize this custom as the 1942 variant of the old-fashioned log cabin "raisings" and husking bees. With sons being called to the colors and many farm laborers working in defense plants, farm folk are again adapting these customs of an earlier day to meet present conditions. Hired men, no longer confining their labors solely to their employers' farms, are being sent wherever a shortage of manpower is reported. Replacements and spare parts of farm machinery are being spared.

At Mt. Gilead, Ohio, six leading farmers of the community not only took a census of nearby townships to determine where there are labor shortages, but they recruited a group of one-time farmers who have agreed to drop what they are doing and help farmers whose crops need harvesting. This down-to-earth helpfulness of getting together to plow a neighbor's field when he is incapacitated, of cutting a winter's supply of wood, or of harvesting his hay in time of emergency, are practices which have prevailed so long in rural areas that they have ceased to evoke comment.

WHERE QMC BUYS FOOD. (Business Week, June 13): Three central procurement agencies buy most of the Army's nonperishable foods, then distribute them to regional depots whence they are fanned out locally. These three are: Jersey City Quartermaster Depot, Chicago Quartermaster Depot, San Francisco General Depot. Perishable foods are purchased through agencies called Quartermaster Market Centers.

DURABLE FENCE POSTS. (Texas Farming and Citriculture, June):
Most farmers no longer have durable wood available for use as fence posts.
Non-durable second growth wood must be chemically preserved to make it
last. Recently, a new and relatively simple method, known as the trough
method, was developed at Clemson College, S.C., for impregnating freshly
cut fence posts with water-soluble preservatives. In these experiments,
decay and termites caused the destruction of untreated posts within two
years, whereas the posts treated with zinc chloride are perfectly sound
after more than three years and have lasted considerably more than ten
years longer than similar untreated posts.

DRIVER-SALESMEN MUST CUT TRUCK MILEAGE 25%. (National Provisioner, June 13): Regardless of length of route, provided that drivers return to point of origin the same calendar day, all driver-salesmen must reduce mileage 25 percent as compared with the same month in 1941, according to a new ruling of the Office of Defense Transportation. Previously these carriers were to operate with a full load on the trip out and a 75 percent load on the return trip. Under the new ruling, they are subject only to mileage reduction and are permitted to return empty should conditions make such action necessary.

A new drug, known as dicoumarin, originally isolated from spoiled sweet clover and recently synthesized at the University of Wisconsin, promises to become an important new agent in the treatment and prevention of the formation of blood clots, one of the serious risks of surgery, it was reported at the annual meeting of the American Medical Association. Heparin, a substance isolated from horse liver, acts as an anti-coagulant, but is a costly substance and must be administered by injection into the vein. Dicoumarin is about one-tenth as expensive and can be given by mouth.

CANADIAN TEXTILE OUTPUT. (Canadian Textile Journal, June 5): Official reports on operations of the cotton and woollen textile industries in Canada during 1940 have been issued by the Dominion Bureau of Statistics providing information on these major divisions of primary Canadian textile enterprise covering the first complete year of wartime production. The reports are of special significance. Spectacular increases are shown in gross output, employment, and materials used, reflecting large war orders and expansion of civilian trade. The statistics provide an excellent basis of comparison on industry operations during the war period as against activity in pre-war years. A considerable advance was made by the cotton textile industries during 1940 when the gross value of production at \$115,559,067 represented an increase of \$34,329,369, or 42.3 percent as compared with the previous year. In the woollen textile industries the gross value of production increased \$33,263,768, or 75.8 percent as compared with production in the previous year. Employment increased 16.5 percent in the cotton industries and 25.1 percent in the woollen industries during 1940. Both industries show greatly increased consumption of raw materials and there was an appreciable increase in capital investment.

MILK MAKES MEN AND MEN LIKE MILK. (Milk Plant Monthly, June):
Men like milk. According to recent army news releases, soldiers not only drink milk with their meals; they actually spend money for more milk away from camps. The A. & M. College of Texas has been demonstrating for years that milk makes men and that men like milk. Like any group of high school boys, most of them feel that they have outgrown milk before they arrive at A. & M. as freshmen. But when they sit down at a table with a group of boys who are drinking milk, they are pretty apt to drink theirs just to get their share if for no other reason. At present 4,600 cade ts are drinking 18,000 half pints of milk daily. But the average cadet is a piker when compared with the A. & M. football players. These boys who have won one national and three southwest conference championships in the last three years drink an average of nine half pints or 2 quarts of milk

a day throughout the football season. Now dare the young son or your kid brother to call that "baby food."

PLASTIC MATERIAL FROM WASTE CELLULOSE. (Science Service report in New Orleans Times-Picayune, June 9): A plastic filler material made from sawdust, scrap wood, cotton plant fibers or other waste cellulose materials was announced at the recent meeting of the American Institute of Chemical Engineers. The filler material can be combined with phenolic resins in the proportion of three parts of filler and one of resin. This gives a plastic comparable with that obtained from one part filler to one part resin when ordinary fillers are used, thus saving the present limited supplies of phenolic resins.

U.S.-BRITISH POOL RESOURCES. (Washington Post, June 11): "The chain linking our effort with Britain's has been completed with the establishment of the combined production and resources board and the combined food board...Not much change will be required on the food front. Already Secretary Wickard has thrown himself zealously into the job of insuring food for the freedom front out of our ample supplies. We are the granary of the United Nations...Altogether the new arrangement strikes a great blow in behalf of the freedom front. Under it we can get the best results in the quickest time."

ASKS CARE IN USING WOMEN ON FARMS. (New York Times, June 13):
An official plea that all efforts to put women on farms to meet agricultural labor shortages be done only through the U.S. Employment Service and local agricultural war boards has been made by the U.S. Women's Bureau. A report, entitled "Guides for War-Time Use of Women on Farms," is to be distributed to women's organizations and State and Federal agencies. It said that nothing would be gained if scattered groups of women moved to farms without regard for their capabilities or the needs of the region. It also said that women wishing to help in the FfF Program should not undercut the normal farm labor market by offering to work without pay.

COTTON INSULATION FINDS NEW MARKETS. (Texas Farming and Citriculture, June): Cotton insulation material, first introduced for maintaining comfortable room temperature in homes and office buildings, is entering new fields which may result in great expansion of markets for this cotton product, the National Cotton Council and Cotton-Textile report. Successful experiments have already been conducted on the use of the cotton lint insulation in refrigerator cars and trucks, and in household refrigerators, as well as in the construction of dwelling houses and other buildings requiring protection against cold, heat and sound. The product is now being tested for use in marine and airplane construction. It is said to be especially suited to these purposes because the cotton insulation is so light and cohesive that vibration will not cause it to settle.

ROUND TRIP RUBBER. (Business Week, June 13): Lack of reclaiming facilities in Britain accounts for a 640,000-1b. shipment of old tires from England, recently unloaded at the United States Rubber Reclaiming Co., in Buffalo. An equivalent amount of reclaimed rubber will be sent back to England where it will be used in war industries.

# RECEIVED

### The Daily Digest

U.S. Department of Agricuture

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., June 18, 1942

TEN MAJOR FAULTS IN GOVERNMENT REPORT WRITING. (A summary of a study by William Dow Boutwell, American University, as reported on page A1599 of the Congressional Record, April 21):

1. Sentences are too long. Voted unanimously as one of the worst faults in nearly all writings analyzed. Average sentence length in poor Government writing varies from 65 to 80 words per sentence. In exceptionally good Government writing (Report to the Nation by Office of Facts and Figures and President's speeches) average length is from 15 to 18 words per sentence.

2. Too much hedging; too many modifications and conditional clauses and phases. The master writer will say, "A third of a nation ill-clothed, ill-housed, ill-fed." The amateur will write: "On the whole it may be said that on the basis of available evidence the majority of our population is probably not receiving the proper type of nutriment.\*\*\* Psychologists say that "conditional clauses cause suspension of judgment as to the outcome of the sentence, and therefore increase reading difficulty."

3. Weak, ineffective verbs. "Point out," indicate," or "reveal" are the weak reeds upon which many a Government sentence leans. Writers overuse parts of the verb to be. Hundred-word sentences with "was" or "is" as the

principal verb are not uncommon.

4. Too many sentences begin the same way, especially with "The." A sentence beginning with "The" is like a day beginning with a fog. Yet, look at this: "The present volume on expenditures for housing is one of a number of publications prepared by the Bureau of \*\*\* from data obtained in the study of consumer purchases. The results of this study are presented in three series of reports, of which the present constitutes the third. The first series was concerned with an analysis of the distribution by income class, occupational group, family type, nativity, and home tenure, of families studied in selected communities in different parts of the country. Each volume in that series pertained to a specific geographic region. The second series comprised reports for the same regions on the size and relative importance of expenditures for the main categories of family living, with only incidental reference to the constituent items in these categories. The third series presents detailed data collected in all regions covered by the study for each of the more important of these categories."

5. The attempt to be impersonal, which forces use of passive tenses and indirect phrases. Example: "To determine whether retail sales have been out of line with expectations based on the past relationship of retail volume to income, estimates of retail sales in the first half of each year from 1935 through 1940 have been charted against income payments for the same periods, and a line of estimate fitted to the resulting scatter." The good writer would say: "Our statisticians have charted estimates of retail sales, etc., etc." (To be continued)

DEHYDRATED MEATS. (Butchers' Advocate, June 10): Processes for dehydrating meat for war-time uses now have been developed, the American Meat Institute announced. The processes were devised at the request of the U.S. government, which is expected to be in the market shortly for quantities of both dehydrated beef and pork for shipment to nations at war with the Axis. Americans armed forces abroad also may require the products for emergency uses on land or sea. Dehydrated meats are approximately 55 percent pure protein. Also, they are natural sources of significant quantities of the B vitamins, iron, phosphorus, and copper, all of which are nutritional essentials. Many weeks of intensive work by research laboratories of meat packing companies, the American Meat Institute and the United States Department of Agriculture were required to develop the processes. These involve grinding, pre-cooking, and drying in air dryers or vacuum. Drying temperatures are far below the boiling point of water. These products will help greatly in the conservation of shipping space. When "reconstituted" by the simple addition of water, the meats may be made into meat loaves, stews, soups, patties, and, in fact, in practically any way ground meat is used. In an emergency the beef or pork, which are in flakes, may be eaten without any preparation to provide energy and satisfy hunger.

MEAT BOARD CHOOSES 1942 NATIONAL POSTER AND ESSAY CHAMPIONS. (National Provisioner, June 13): The National Live Stock and Meat Board has announced the winners in its annual meat poster and meat essay contests. which were centered this year around the timely theme, "Meat and Victory." In the seventh national meat poster contest, first honors went to Miss Ina Ginsberg, Buffalo, N.Y., high school student. Miss Ginsberg's prize-winning poster, was titled "A Land of Plenty -- Fight for It." It depicted in strikingly colored fashion an American farmer, whose task is the production of meat and other foods so vital to victory, against a background of American soldiers ready for action. The poster also carried the caption, "Meat Builds Health," and called attention to its value as a source of vitamins, protein and minerals. "Meat is a valuable food for America," wrote Miss Erickson in her winning essay. One 4-oz. serving of meat, the essay stated, will supply 24 percent of the protein, 11 percent of the calories, 17.5 percent of the phosphorus and 20 percent of the iron needed in the diet of the moderately active adult.

VICTORY GARDEN HARVEST SHOWS. (Florists Exchange & Horticultural Trade World, June 13): The organized effort to bring about thousands of victory harvest shows throughout the country is beginning to bring results. In many States committees are being formed and the head of each State committee will have a place on the National Council of which Secretary of Agriculture Wickard has accepted the position of honorary chairman. Some 5,000 USDA workers throughout the country will be contacted and supplied with a copy of the booklet entitled: Suggested Procedure for Staging Victory Garden Harvest shows, 20,000 of which are being distributed through the Navy Relief Society, 730 Fifth ave., New York City. This booklet, prepared by the National Council under the chairmanship of Richardson Wright, provides all the information community show sponsors may need. To affiliate with the Victory Garden Harvest Show movement, show promoters must agree to charge an admission fee and turn over 85 percent or more of the gate to Army Emergency and Navy Relief.

LOCAL APPEAL BOARDS TO PASS ON TRUCK APPLICATIONS. War Letter for Agriculture, June 15: Establishment of 17 local appeal boards throughout the country to pass on applications for new trucks has been announced by the Office of Defense Transportation. This includes trucks for farmers. These local boards will take over the duties of the special Washington Appeal Board. Like the Washington Board, they are composed of one representative each of for-hire motor carriers, private motor carriers, and the public. Decisions will be subject to final approval of the ODT's Allocation Section.

The local appeal boards have been established in Boston, Philadelphia, Atlanta, Columbus, Chicago, Nashville, Kansas City, Little Rock, Fort Worth, Salt Lake City, Denver, Portland, San Francisco, and Los Angeles. Organization of boards in New York, Minneapolis, and Charlotte also is under way. The ODT has notified its local allocation officers that the State and County USDA War Boards are available for counsel and information on agricultural matters, particularly in regard to applications from farmers. Applicants wishing to appeal decisions of the local allocation office should request that the application be referred to the local appeal board.

RAYON FOR WAR PURPOSES. Canadian Textile Journal, June 5: Demand for rayon products for military purposes is steadily increasing both in United States and Canada, American air services are using rayon cloth throughout the parachute field, excepting for actual escape chutes. Rayon is being used for tarpaulin and sleeping bags, and strong rayon is becoming standard equipment for certain types of airplane, truck and motorcar tires. Spun rayon and wool cloths are being used for the summer uniforms of the Canadian Women's Army Corps personnel, and spun rayon and cotton fabrics are being used for uniforms of the Canadian Women's Auxiliary Air Force. Rayon flarechutes are being made in Canada and output of strong rayon is being expanded. To date production of rayon war materials in Canada has not seriously affected civilian goods output.

pounds of milk! That's the goal for 1942. To help dairy farmers meet the goal, specialists of USDA's Bureau of Dairy Industry have prepared the following 11 suggestions for increased milk production: 1) Feed more grain....2) Feed more heavily in summer and fall....3) Feed more good roughage in both winter and summer....4) Milk oftener....5) Allot each cow a dry period of 8 weeks....6) Have the cows calve every 12 months....7) Have the cows in good condition at calving time....8) Handle the cows gently.....9) Keep the cows comfortable.....10) See that the cows have plenty of water.....11) Keep more milking cows.

PLAN USE OF WASTE IN COTTON BAGGING. New York Times, June 13: A voluntary program of conversion to war production involving spinners of wool carpet yarns and weavers of upholstery fabrics, in which approximately 1,000,000 bales of cotton waste will be used for manufacturing much-needed bagging materials, has been announced by the Eastern Textile Association for War Conversion. Officials of the association said it is estimated approximately 3,000,000 yards weekly of cotton baling materials will be needed for war purposes and essential civilian needs.

1942 EGG PRODUCTION SITUATION. Supplement to War Letter for Agriculture, June 15: Although poultrymen are expected to exceed the 1942 egg production goal, we can use all the extra eggs we can produce this year. The flow of eggs to our armed forces and to our Allies must be increased and domestic demand is strong. The needed increase this year must come largely from hens already in production, which means that increased production must be obtained through better care and feeding for more efficient production. Most of the increase must come from farm flocks in areas where the poultry industry is well established, and where there are adequate facilities for marketing and handling eggs at all seasons. The task ahead is to see that the present laying stock, as well as the chicks that will be next year's layers, are cleanly and comfortably housed and adequately fed. Greater efficiency in egg production will mean more eggs, savings in labor and feed, a better income.

JEEPS IN POST\_WAR FARMING? Editorial in Implement & Tractor, June 6: Official attention is being directed to peacetime uses for the hundreds of thousands of jeeps which are rendering valiant service on every American battle front and in every Army camp. Their war time utility is unquestioned -- but after the war can they be used as farm tractors? Tests of their abilities as tractors have been conducted by the Bureau of Agricultural Chemistry and Engineering, U.S.D.A. at its testing laboratory in Auburn, Ala.... As a tractor, however, the jeep has serious limitations. It has a 51-inch tread and an 8-inch axle clearance, which eliminate it from consideration as a tractor for row crops. Ninety-five percent of the wheel tractors sold by the industry for use in the United States in 1940 were all-purpose units, as were also 90 percent of the total wheel tractors sold in 1941. It has no provision for pulley or power take-off, although some method of adding these might be devised, should the jeep be made available to farmers. As it now stands the industry can build a lot more tractor for \$800, the stated price of the Jeep, than the Jeep now provides. But the industry might not be able to compete at the prices under which the Jeep would likely be liquidated to agriculture....Let the jeeps' tests of non-military usage continue that they may find their proper place in a peacetime economy, which may or may not be on the farms. If they are to be unloaded upon the farmers, let them be sold for what they are and not oversold as tractors.

TENN. EGG-DRYING PLANT NEARS PEAK OUTPUT. Commercial Appeal, June 7: The McKenzie, Tenn., egg-drying plant which started breaking eggs last January is rapidly nearing a capacity output of 1,000 cases daily. Counting 360 eggs per crate, peak production will mean that 360,000 eggs will be processed into powdered form each day for lease-lend shipments and for America's armed forces.

AUSTRALIA RATIONS CLOTHING. Canberra report in Washington Star, June 12: Clothing ration books have been distributed throughout Australia. The use of coupons will mean a substantial reduction in clothing purchases compared with peacetime standards. Cotton goods carry the highest coupon rating because Australia's supplies of cotton depend on what Britain can allocate. Rationed goods include clothing, cloth, footwear, headgear, and knitting wool.

# The Daily Digest

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Washington, D.C., June 19, 1942

TEN MAJOR FAULTS IN GOVERNMENT REPORT WRITING. A summary of a study by William Dow Boutwell, American University, as reported on page Al599 of the Congressional Record, April 21: Continued from Page 1, Daily Digest for June 18, 1942.

- 6. Overabundance of abstract nouns. Such nouns as "condition," "data," "situation," "development," "problem," "factor," "position," "basis," "case, dominate the writing of too many Government documents. How bright and real writing becomes when picture-bearing nouns take the place of vague ones may be seen from this sentence: "During the lean years when salaries and wages were low and irregular the people who drifted into the credit-union offices came around because they had dropped behind in their personal and family finances and had to get a loan."
- 7. Too many prepositional phrases. In a study of reading difficulty, investigators (Drs. Leary and Gray of Chicago University) found that prepositional phrases ("of the data," "under the circumstances," etc.) add to reading difficulty. Yet, samples of Government writing show that many officials use at least one prepositional phrase to every 4 words. Samples from good writing contain only one prepositional phrase to every 11 words.

8. Overabundance of expletives. "It is" and "there are" and their

variants ruin the opening of many good paragraphs.

- 9. Use of governmentish or federalese. "Shop words" serve a proper purpose for "shop" audiences. But many Government writers make the mistake of talking to the public in technical, office terms, for example: "The 201 reporting schedules," "the vend program," "primary forage-plant method". The above nine faults have to do with structure of language. There is, however, even a deeper difficulty in the writing of Government documents which make many of them so difficult to the average reader. This might be described as
- 10. Tendency to make ideas the heroes of sentences. People think in terms of people and things for the most part. The Government official writes in terms of ideas and phenomena only. Hence, when a writer means: "Employers refuse to hire older workers in defense industries," he writes instead: "Refusal of employment of older workers continues." In other words, the writer has substituted "refusal," an idea or phenomenon, for "employers" -- living people.

MEXICO'S TEXTILE PRODUCTION MOUNTING. (Foreign Commerce Weekly, June 13): Attractive prices and strong demand have encouraged Mexican farmers to increase their cultivation of cotton and flax, and a large harvest is in prospect. Cordage factories around Merida are operating on full time with little interest in new orders. Increased numbers of coconut palms are being planted, and a new cocofiber plant was inaugurated in April. The textile industry, both cotton and woolen, is working at capacity.

BRITON ASKS FOR MORE FAT WITH BACON. (The National Provisioner, June 13, 1942): The trim British stenographer may like her breakfast bacon lean, but Hon. W. Earl Rowe, member of the House of Commons for Dufferin-Simcoe, doesn't see eye-to-eye with her on that point. Mr Rowe said in Parliament that Canadian hogs should be brought to greater weight before being marketed, "These long, streamlined white Yorkshire hogs," he declared, "that we were urged to raise so that our bacon could compete on the British breakfast table with the lean bacon from Denmark — so that the girl who was tripping off to her office and wanted to keep her figure would not have too much fat — are not the kind of hogs we should be raising today. What we want now is more fats and more oils and more bulk. These long, thin hogs can carry 50 lbs. more weight, and the boys overseas and starving people over there would rather have their bacon with a little fat on it than half as much pork with no fat at all."

COMBINES, BINS SCARCE AS HARVESTING STARTS. (Implement & Tractor, June 6): The approach of one of the largest winter wheat harvests in many years in the Southwest is accentuating the acute shortage of new harvesting equipment. The shortage is keenest in some areas of heavy yields, which had short crops in 1940 and 1941 and which therefore have inadequate quotas upon which to supply 1942 needs. So far as transportation facilities will permit, a larger than usual number of harvesting outfits will start from Texas and work north with the harvest, thus compensating to slight extent at least local equipment shortages. A lack of steel grain bins is expected to complicate storage, and many of the traveling trucks which follow the harvest to provide transportation from fields to local markets will be missing on account of rubber.

CROTALARIA AS A FIBER SOURCE. (The Chemurgic Digest, May 30): Crotalaria as a fiber-bearing plant was discussed at the Fourth Annual South Carolina Chemurgic Conference by J.N. McBride, General Agricultural Agent of the Seaboard Air Line Railway. Pointing out the need for increased domestic sources of fiber for the manufacture of rope, bagging, cordage, and high quality paper, Mr. McBride indicated that crotalaria may offer possibilities, provided machinery to efficiently harvest and decorticate the crop is developed. About ten years ago, crotalaria, a plant native to India, began to gain prominence with growers in Florida as a soil improvement crop for citrus groves.

There are several varieties of this plant. In India it is from the juncea strain that the Sunn fiber is obtained. Imports of this material are suited to the manufacture of fairly satisfactory cables, canvas and cloth, and when mixed with tar in making okum. It is primarily used, however, by the paper industries. The Carolina Giant Striata and Lanceolota strains are now being satisfactorily produced in South Carolina. The Seaboard Air Line Railway is cooperating in having sample lots decorticated and the fiber tested. One rope manufacturer has reported that fiber from the domestic crops is in some respects superior to imported fiber. Paper manufacturers are also interested in the crotalaria fiber, if it can be made available in volume at an economic price.

FACTS ABOUT SUGAR. (American Journal of Pharmacy, April): We Americans consume about seven million tons of sugar a year. Compare that with the three million tons consumed by much larger population of Soviet Russia. In such countries as Australia, New Zealand, Denmark, the United Kingdom, and the United States annual sugar consumption in recent years has run from 100 to 112 pounds a head. In short, we Americans consume about 2 pounds of sugar per week each. That covers only sugar purchased as such, and not the large quantities we also get in soft drinks, candies, cakes, preserves, ice cream, and such.

Roughly two-thirds of all the sugar is consumed in homes and in restaurants and one-third is used in processed or manufactured products. If it is assumed that an average family consists of 3.77 persons, and social scientists usually make this assumption, that means that the average American family gets away with 7.54 pounds of sugar a week. Take the United Kingdom for purposes of comparison. In normal times its average family of the same size consumed a little less than 5 pounds of sugar weekly as compared with our 7.54. The current sugar ration in Britain for a family of this size is 12 ounces weekly.

. The current plan will ration American families at a rate of about 2 pounds of sugar weekly. Again that would be only the sugar we purchased or used as such. But it is as much sugar as a British family gets in all forms weekly, for jam, marmalade, syrup, and molasses also are rationed in Britain. In general British sugar consumption is now about 40% of pre-war levels. It is also but 70-82% of the German ration, depending upon the type of Britisher used for the comparison. Sugar is an energy food and Britishers who do heavy work get increased rations. On the other hand British medical authorities were protesting a decade ago that increased sugar consumption was leading to bad health.

NEWSPAPER CUTS DOWN ON PERIODS TO SAVE TIME AND SPACE. (AP report, June 17): The Press-Union newspapers of Atlantic City announced today that they would hereafter drop all periods after abbreviations. Hence the newspapers will print the name of Dr H K Jones, 23 S Boston Av, in that fashion; the president of the Women's Research Club will be listed as Mrs W S Jeffries of 15 S Mansfield Av and the pastor of St Nicholas Church as the Rev Dr John T Sheehan. The purpose of the new style is to save time and space.

MILK TOPS THE LIST. (USDA folder): War pulls no punches. War has made it imperative that we all be well fed. Rejections of young Americans under Selective Service suggest that "want in the midst of plenty" was more than a well-turned phrase. As a result, increasing emphasis is being placed on the importance of good nutrition, of diets rich in minerals and vitamins, of better health for all of us. The challenge of the forties -- to supply all wartime food needs -- has been accepted by farmers. It is the basis for a broad program of farm production of foods that will build health into our manpower. Milk tops the list. Farm production goals set up by the Department of Agriculture for 1942 emphasize food needed most. More milk, more cheese, more eggs, more vegetables, more fruit, more meats. Foods with nourishment in 'em! Foods we can fight on! Foods for hard work and long hours! Milk tops the list. Secretary Wickard says that food will win the war and write the peace. When the peace is written, no man, woman, or child

should have to go back to an inadequate diet -- undernourishment. No lasting peace can be built on hunger. As in war, so in peace, food -- nourishing food -- is the foundation of freedom.

CORRECTION. In the June 9 issue of the Daily Digest, the article, "Proper Freezing for Pork", mentions a refrigeration treatment of "not less than 10 days at 10° F." The proper temperature should have been -10° F. This correction is made at the request of the Bureau of Animal Industry in the public interest since -10° F. is necessary under the circumstances outlined to assure complete protection against the serious disease, trichinosis.

BRAZILIAN RUBBER-PRODUCTION PROGRAMS MOVES AHEAD. (Foreign Commerce Weekly, June 13): From Rio de Janeiro comes the report that the Brazilian program to increase rubber production in the vast Amazon Valley is going well Additional labor is being sent to the Amazon area from northeastern Brazil to aid in rubber development. The export price for standard rubber from Belem (Para), Amazon port, has been set at 39 cents a pound. This is nearly double what the United States was paying for rubber from Malaya and the Netherlands Indies before the fall of Singapore.

The United States is putting up \$5,000,000 for expansion of rubber production in the Amazon Valley under Brazilian direction. The surplus output goes to the United States. To aid Brazilian rubber development, the United States likewise is giving financial and technical assistance for health and sanitation projects in the rubber-producing areas.

SOFT FRUIT MEN IN CLEARING HOUSE. (Better Fruit, June): Soft fruit growers of central Washington are uniting on an orderly marketing and advertising program. Their first step was to become members of the Washington Growers Clearing House Association, a Land Use Planning sponsored agency originally set up for apples, but enlarged recently to include cherries, apricots, peaches and Bartlett pears. Coming into this agency means the first attempt of all soft fruit growers of the Wenatchee-Okanogan district to get together under a common program, and is also a definite step towards the ultimate uniting of all fruit interests of Washington State in the Land Use program encouraged by the United States Department of Agriculture.

FOOD CONSERVATION. (The National Provisioner, June 13): Stressing the importance of food conservation, the New York City department of public health has suggested the slogan, "Starve the Garbage Can."

Cincinnati meat packers have reduced deliveries to one per customer or place of business daily. They have also eliminated special or rush service and Wednesday deliveries except in weeks in which a legal holiday falls. A delivery mileage reduction of approximately 50 percent below 1941 is contemplated.

SYNTHETIC RUBBER THREAD. (Canadian Textile Journal, June 5): Production of synthetic rubber thread from Ameripol synthetic rubber has been announced by the B.F. Goodrich Co. in United States. Possible uses of the new thread include harness for parachutes, gas masks and respirators, and other equipment.

## Daily Digest



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Washington, D.C., June 22, 1942

CO-OPS ON TRIAL. (Co-operative Digest, June); Co-operatives, like private business of all kinds, now face new problems and new opportunities. Most of the nation's 10,600 agricultural co-operatives came into being after World War I. Many of them grew out of the chaos of the post-war depression. They ve weathered at least one depression period in the early thirties, have gone through a period of governmental programs for agriculture ranging from the Federal Farm Board to the Farm Security Administration. All of these were just parade drill to the acid test they now get in World War II - a war that has been called a war of production and one in which the farmers have been called upon to produce more food than ever before and to turn in this production without the help of many farm supplies that before have just been taken for granted. Co-operatives, like democracy, are on trial. Can they measure up to their claim of being instruments of service and can they prove their ability to remain democratic organizations and at the same time manoeuver with dispatch when under fire? In Wisconsin and other dairy states, co-ops had turned from making butter to turning out powdered milk for shipment to the American soldiers from Alaska to Australia. to the British, Russian and Chinese allies. In Louisiana co-operative sugar mills were crushing sorghum to make the molasses that used to come from the East Indies and that is so badly needed now for the production of alcohol. Feed supply and poultry co-ops have, where necessary because of the bag shortage, re-designed their truck bodies to permit the handling of feed in bulk. Wool co-ops and cotton gin co-ops were getting together on a plan for the use of cotton gin equipment in the baling of wool as a means of conserving both burlap and shipping space. Even the honey co-ops of Colorado were urging members to keep the bees a little busier. Co-operatives have been among the first to face the facts and realize the importance of moving in on transportation. Leaders knew that there would be a million more tons of hogs, five million more tons of dairy products and a lot more grain, produce wool and livestock than usual to move to market this fall. They!re getting set now.

FERTILIZING SOIL WITH A GAS. (Science Service release, June 11): Squirting jets of ammonia gas into the soil of fields and orchards is the underlying idea of a recently patented device. Anhydrous ammonia in pressure tanks has been used for some time by ranchers and orchardists in irrigated regions. The gas is released through a perforated pipe into the water, and goes in solution to the places where its fertilizing effect will do the most good. The present invention adapts that procedure to use in the soil. Jets, provided with suitable openings, are led down behind a series of small plowlike shares, and through them the ammonia gas passes into, and is captured by, the moist soil. Bacteria subsequently convert the ammonia into nitrates, which are absorbed by the crop plants.

MILKWEED PROCESSING PLANT. (The Chemurgic Digest, May 30): A factory for processing milkweed floss for commercial utilization, the first of its kind, is to be established at Petoskey, Michigan, for processing this year's milkweed crop during late September. A commercial size model of a machine, which will produce approximately 600 pounds of milkweed floss per day, has been built. Contracts will be made shortly with a Chicago firm to build ten units of this milkweed ginning machine as equipment for the Petoskey factory. Milkweed floss can be used as a substitute for kapok, floss from Kapok trees which grow in the Dutch Indies, Ceylon, British India, South Asia, and Central and South America. Milkweed has fibers similar to kapok fibers, i.e., hollow and containing air cells. It is this quality which causes kapok's, and milkweed's buoyancy. Because of milkweed's buoyancy, which is claimed to be five or six times greater than that of cork, it will become a vital material in life jackets. One pound of the floss has enough buoyancy, even after 48 hours, to sustain 50 pounds of weight. A life jacket of three pounds of floss content will keep a man floating in water for over 100 hours. The floss is warmer than wool, and six times lighter, layer for layer.

OREGON FOOD-DRYING FACILITIES. (Better Fruit, June): Oregon's food-drying facilities, which exceed in volume those of any other state, can be made quickly available to further the nation's war effort in a gigantic food-drying program if national officials co-operate by indicating the type and volume of foods needed and prices to be expected, according to a report submitted to Washington by William A. Schoenfeld, director of agriculture at Oregon State College. The report shows that when the last detailed survey was made by the state department of agriculture in 1938, Oregon had 281 food driers of various types, capable of handling 100,000 bushels of fresh produce per day.

Even at present production levels, Oregon has about 15 million tons of fruits and 13 million tons of vegetables per year suitable for dehydration, the report points out. Oregon's wide diversity of crops, furthermore, would make a year-round drying program possible, with small fruits, cherries, and certain kinds of vegetables to be dried in the summer, with apples, pears, potatoes, cabbage, and root crops to be dried the remainder of the year. For 25 years the state college has carried on research in drier construction and fruit-drying methods, which will be invaluable at this time, although additional research is needed in the case of vegetable dehydration.

GROCERY CO-OPS. (Cooperative Digest, June): The Ohio Farm Bureau Federation has recommended "the development of a cooperative grocery program, along lines recommended by the survey committee, and as conditions warrant." For some time the Ohio group has taken the lead in branching from farm supplies to such lines as refrigerators, vacuum cleaners, radios and other household equipment and appliances. For the time being local Farm Bureau County Cooperatives will confine their sale of groceries to a case-lot display and order basis.

CONCENTRATED ORANGE JUICE. (Business Week, June 13): Squeeze the juice out of 25 cases of oranges and then concentrate it and you will get one small case of orange concentrate. Because of the shortage of shipping space.

that's the way we are shipping Vitamin C to Britain these days. The 380,000 gals. of concentrate (to be diluted with water before being used) that have already been shipped amounted to 3,000,000 gals. of fresh orange juice.

U.S. VEGETABLE-OILS MISSION TO BRAZIL. (Foreign Commerce Weekly, June 13): This mission recently returned to the U.S., reports Brazil needs, and is well on the way to having, hundreds of technical experts — engineers, laboratory, research, and statistical workers, and marketing men. State "quality control" is everywhere in evidence, and some is admirably advanced, but much remains to be done. The State and Federal Governments of Brazil should encourage standardization, grading, and identification of products; part of this advanced technique can be accomplished through international trade conferences every year or so — if held in the United States and Brazil, these meetings could improve business relations and stabilize commercial practices.

At present the oils-trade machinery varies from relatively primitive to most modern installations; technology likewise covers the entire scale of possibilities. Much oil is shipped in an unrefined state; some could be exported more profitably if it were ready for use by United States industries. Conditions will continue to improve, as there is no lack of planning and no dearth of essential data. This Mission's return will permit our country and Brazil to cooperate more closely in this fast-growing oils industry so vital to United States business and war efforts.

DEMAND FOR DAIRY PRODUCTS IS UP. (USDA Folder): Employment is up—
the manpower of the Nation requires more milk for health and strength. The
United States Department of Agriculture is buying large quantities of evaporated
milk, dry skim milk, and cheese to supply fighting needs of the United Nations.
Department-sponsored programs of penny milk for school kids, and low-cost milk
for needy families, are expanding. By reason of this stepped-up demand, total
returns to dairymen on sales of milk and butterfat are better than they have
been for more than a decade. Moreover, feed supplies during most of the year
will be ample for heavy feeding. With rising demand, plenty of feed is a
margin of safety between sales income and production costs.

Clictory, June 16): In order to effectuate purchases of canned tomatoes and peas for use by the military forces, Price Administrator Henderson has excluded such sales and deliveries to the Army Navy Marine Corps. Lend-Lease Administration, Veterans' Administration, and Treasury Procurement from provisions of Maximum Price Regulation No. 152 (Canned Vegetables) and the general maximum price regulation. The purchasing agencies of the armed forces prefer the better grades and larger can sizes of tomatoes and peas. The Department of Agriculture's support prices, announced December 19. 1941, of 95 cents per dozen and \$1.10 per dozen for Grade C or Standard tomatoes and peas respectively, packed in 16-ounce, number two size cans, have provided the incentive for heavy production and packing of such grades.

WATERPROOF COATING FROM CORN. (Science Service release, June 11):
A waterproof coating from corn, to replace war-scarce rubber and certain plastics, is protected by a patent assigned to the Corn Products Refining Company of New York. It has to do with a new method for treating zein, a protein found in corn and already in use to some extent as an adhesive and plastic.

JAPANESE EVACUEES TO CULTIVATE 10,000 ARK. ACRES. (Victory, June 16):
Ten thousand acres of raw but rich Mississippi Delta land in southeastern
Arkansas will be cleared, drained, and put into cultivation by Japanese
evacuees from Pacific Coast States, the War Relocation Authority has announced.
The area selected by the Army and Authority as the seventh site for relocation
of Japenese evacuees is in Desha County near Rohwer, about 15 miles north of
Arkansas City. Approximately 10,000 evacuees will be moved in as soon as
basic housing can be provided. Emphasis will be primarily on production of
foods for the evacuees and secondarily on crops to meet national needs. The
area is well adapted to produce long-staple cotton, alfalfa, soybeans, oats,
corn, and truck crops.

Even though additional products have been rationed and rations for a number of products reduced the Swedish diet is reported to still be adequate enough to maintain health. While rations for one or two products, such as bread, are smaller than those of some of the belligerents, an outstanding distinction is that the full Swedish rations have always been obtainable. The sole exception is eggs, in which case it is practically impossible to obtain the monthly ration of about eight eggs on the legal market. Eggs in Sweden are said to have vanished into the "black market."

DEHYDRATED PRODUCTS SAVE SHIPPING SPACE. (Business Week, June 13):
One of the most spectacular developments in the lend-lease food program is the expanded output of all kinds of dehydrated products in order to conserve shipping space. A year ago, when British experts first arrived in the United States to contract for wartime food supplies under lend-lease, they asked particularly for dried milk and dried eggs. At that time there were in the United States 275 plants turning out about 350,000,000 lb. of dry skim milk, much of which had been developed for the bakery and export trades. In the intervening year, only seven new milk-drying establishments have been set up in this country, but production has been boosted. Much of the capacity is being shifted to the production of dried whole milk because new methods have made it possible to handle the cream in whole milk without serious risk of its becoming rancid.

Dried eggs were even less familiar on the American market than milk powder. Until about a month ago, egg powder was packed in barrels for delivery to Britain, but beginning this month, most of the egg powder shipped abroad will go in individual paper boxes containing 5 oz. (a dozen eggs) and priced to sell at about 34¢ in England. While dried eggs can be used for cooking or scrambling, and despite the fact that one packer is preparing to offer them in a consumer-size package for the home market, they are dried mainly to conserve shipping weight and space. A case of 30 doz. eggs in the shell weighs 58 lb. and takes up more than two cubic feet; dried they weigh only 11 bl. and occupy less than half a cubic foot of shipping space.

JAVA SISAL USE RESTRICTED. (Canadian Textile Journal, June 5): No person in Canada may use Java sisal in the manufacture of tying twine or binder twine except by permit, according to an announcement by the Department of Munitions and Supply. Sisal from South America and elsewhere may still be used for such twine. Because of the shortage of Manila hemp, the Java sisal is needed in great quantities for the wartime rope used by the navy and merchant vessels.

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Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., June 23, 1942

QUALITY CONTROL OF CONSUMER GOODS. (The Nation, June 20): Our War Production Board is not only deciding what consumer goods may be made but how they may be made. Government orders have fixed the length of hairpins and the number that may be included in a package; also the length of shirt tails, the amount of rubber in corsets, the number of tacks hammered into a pair of shoes, the yardage to be used for men's and women's clothing, the thickness of the glass in food containers and their size. The groundwork has also been laid for many other manufactured and natural products. The specifications for sheets developed by the United States Bureau of Home Economics over many years and the findings of the National Bureau of Standards were available to the OFA when it set up its quality and labeling regulations. Specifications have likewise been established by the government for a wide variety of other items ranging from blankets to house paint...

The problem of grading foodstuffs is comparatively simple. During the First World War the food trade began to use grades as the basis for whole—sale buying and by the time the Second World War started, government grading had been adopted for most fresh and canned fruits and vegetables, as well as for meat and poultry,.. Existing government requirements can be used as a basis for quality standards for many of the foods over which the OPA now exercises control, and the Department of Agriculture has a corps of trained graders who might be called into service. Intelligent use of the quality standards can be expected from the public, for a large number of consumers have already been educated in the advantages of grade buying by the efforts of schools, colleges, the General Federation of Women's Clubs, the League of Women Voters, and federal, state, and city consumer agencies.

THE TINGO MARIA AGREEMENT. (Agriculture in the Americas, June):
This agreement, calls for the construction in the Tingo Maria (Peru) region
of an agricultural experiment station to be managed jointly by the United
States and Peruvian governments. Peru will furnish the buildings and not
less than 1,250 acres of land; the United States will provide equipment
not obtainable in Peru and the services of a director and certain other
members of the scientific staff. The station's responsibility will be to
encourage farming that pays in the Tingo Maria region and in general over
the entire Amazon Basin in Peru.

Emphasis will be on cash crops that complement United States production but such home consumption essentials as fruits, vegetables, poultry, and live-stock will not be neglected. Demonstration farms will be operated and planting material will be produced for distribution. While setting the stage for Peruvian agricultural development to come, the station will be important in the emergency effort of the American republics to obtain scarce raw materials. It will provide an expanded headquarters for work on experimental plantings of rubber trees in the Tingo Maria vicinity. Moreover, it should stimulate immediately the production of several natural forest resources, notably wild rubber, rotenone, and vegetable oils.

APPLE PECTIN AS BASE FOR SALVE. (Better Fruit, June): Pectin from Washington apples is being made into a salve for use by the Navy in treating burns, it was reported recently to the Washington State Planning Council by Edward C. Johnson, Washington State College dean of agriculture. Dean Johnson told the Council that the Navy had asked the United States Government for a salve base to replace materials formerly imported but now unavailable because of the wars. Pectins of horticultural products were tested and it was found that apple and orange pectins made an excellent salve base. Apples proved far the better of the two, Johnson said. A California government laboratory is perfecting the process.

WPB SLIS FARM EQUIPMENT MUST GO TO FARMS. (Victory, June 16): To assure delivery of essential equipment to the American farmer, WPB has ordered that products manufactured under its farm machinery and equipment program must actually reach the farm, and must not be diverted to industrial or other nonagricultural uses. WPB makes it plain that its program is designed solely for production of essential machinery and equipment for farms, including such items as domestic water systems and garden tractors, which have been found to have been diverted in many instances to nonagricultural activities.

ERAZILIAN AID FOR AGRICULTURE. (Foreign Commerce Weekly, June 13):
Two decrees issued by the Brazilian Ministry of Agriculture were designed to alleviate the depressed agricultural situation in the country. The first allows the Ministry of Finance to place 100,000,000 pesos at the disposition of the National Agrarian Council for the purpose (1) of diversifying farming and (2) of creating small holdings. The new policy arises from the problem of disposing of the grain surpluses and the desirability of overcoming the high cost of meats. There is also a greater demand for pastoral produce. This sum will be invested preferentially in the purchase of land at present planted with corn; 30,000,000 pesos will be made available in one operation now, and the remaining 70,000,000 will be used annually at the rate of 10,000,000 pesos, commencing in 1943. This land will be distributed to purchasers under prohibition to grow wheat, corn, linseed and sunflower seed, without the permission of the Agrarian Council, which will keep in view a policy of mixed farming and, especially, of restoring the cattle "population."

The second decree deals with credits for corn growers so that they can plan to vary their crops and mix their farming. Loans will be made of 50 centavos per quintal (roughly, \$0.03 per bushel) of their 1941-1942 corn harvest, assessed according to sales to the Grain Board, for the purchase of cattle and general livestock. It is claimed they will thus be able to commence variation of their production and also go in for dairy farming.

"LAUNDRIES" WILL WASH WAR GASES FROM ENGLAND'S FOOD. (Science Service release, June 12): Gas attacks will not destroy England's food supply. Should the Axis conduct gas warfare, food "laundries" throughout the British Isles stand ready to decontaminate any foodstuffs exposed to gas. In concrete floored, metal-equipped rooms trained civilians are ready to combat effects of any of the fourteen known types of war gases, from deadly phosgene or lewisite to relatively harmless tear gas. In reception chambers of the laundry, staff members will trim off the outside of meats and fats. Then these and other

foods will move into airing rooms. Canned foods, affected only by liquid gas, will be immersed in water treated with a bleaching agent. Each can will be indelibly coded, to identify its contents after the paper label has washed off. When decontaminated, food will move to a sampling room, where tests will prove its fitness for human consumption.

ICE CREAM AND THE WAR. (Business Week, June 13): By a happy coincidence, some 65% of total annual ice cream production and consumption is
from April through September, the period of heaviest milk production. By
the same token, ice-cream and milk production hit their annual lows almost
simultaneously during the winter months. Thus, ice-cream makers like to
refer to themselves as the "balance wheel" of the dairy industry. OPA,
they say, already has upset this balance by fixing their sugar quota at 70%.

As might be expected, the industry also is leaning heavily on the argument that its product is an important food. The association has elaborate compilations showing the heavy vitamin and mineral content of ice cream. An average serving of vanilla ice cream, the industry claims, compares favorably nutrition wise with such other popular American desserts as baked apple, raspberry sherbet, angel cake, oatmeal cockies, and lemon meringue pie. In the last war, ice cream was classified as an "essential foodstuff" and the industry got all the sugar it needed. As an additional argument, the association points out that growers of many fruits and nuts will suffer if their ice cream market is cut off. The industry is the biggest single consumer of peaches, strawberries, raspberries, pecans (it takes almost the entire southern pecan crop), and almonds.

The fruit and nut situation probably will be made more acute by the fact that ice-cream manufacturers are voluntarily limiting themselves to 20 flavors as a means of cutting inventories, saving on paperboard, and simplifying distribution. Each maker may pick his own flavors; his selection inevitably includes the old standbys — vanilla, chocolate, strawberry — but exotics like pistachio, grape-vanilla, nectarine, and tutti-frutti are falling by the wayside.

Actually, the sugar cut isn't as serious as it might be; 70% of 1941 consumption is nothing to sneeze at. Last year was a record-breaker for the industry with overall annual ice-cream production up 18% over 1940 to a total of some 370,000,000 gal. — or considerably better than nine quarts for every man, woman, and child, in the U.S. By special arrangement, many manufacturers are receiving considerably more than the 70% sugar allotment. Their plants are located in war-boomed areas and they're getting extra sugar rations to take care of population increases. In the last war and at the beginning of this, the Army got its ice cream chiefly through post exchanges and a soldier had to plunk down his nickel every time he wanted vanilla. Now ice cream is included several times a month in the official Army menu.

MILK BOTTLES AND ELACKOUTS. (Southern Dairy Products Journal, June):
The Connecticut Milk Dealers Association has devised a plan whereby milk bottles will wear a collar the day following a blackout. The collar explains that the milk in the bottle has not been pasteurized because of blackout interference and advises the customer that it should be boiled before using. The Association has already distributed these collars in large quantities to their dealer members.

WATER IN GRAIN. (Hoard's Dairyman, June 25): Farmers who operate combines are aware that these machines cannot be used as early in the morning or so quickly after a rain as binders because of the difficulty in storing damp grains. How rapidly the moisture content of grain fluctuates in the field is shown by tests conducted by the Pennsylvania Experiment Station. Under good drying conditions, the moisture content of wheat grain will drop one-half to one percent per hour. Wheat that was dry enough to combine increased from 13.5 percent' to 18.9 percent moisture as a result of a .Ol-inch rain in the afternoon, a cloudy night, and a heavy dew. A heavy dew alone caused the moisture content of wheat to increase from 11.9 percent at 4:30 in the afternoon to 14.2 percent at 9:30 the next morning. A heavy dew on oats that contained 12.5 percent moisture at 4:15 o'clock in the afternoon increased the moisture percentage to 17.4 at 8:30 the next morning. Similarly, oats that contained 12.7 percent moisture at 2:00 o'clock in the afternoon, at which time a .70-inch rain began to fall, still showed a moisture content of 18.2 percent the next day at noon.

SPRAYS FOR "CONTROLLED" APPLE PICKING. (American Fruit Grower, June): In order that the maximum benefit may be realized from harvest sprays on apple the following points should be given careful attention and consideration: Timing of application is probably the most important single factor in the success of harvest sprays. The effective period is limited and in order to obtain the best results the spray should be applied just prior to or at the very beginning of the harvest drop. Day-to-day observation as to the progress of the drop on a few typical trees aid greatly in proper timing and pay big dividends in results.

Temperature prevailing during the drying period of the sprsy is an important factor in determining the results obtained. Generally the sprays are more effective when applied at temperatures above 75° F. Applications should be made on the warmest days possible. If a limited amount of spraying is to be done, it seems feasible to apply it during the warmer part of the day. If it is necessary to spray at temperatures of 50° to 70° F., the use of stronger sprays than full strength (.001 percent of active hormone substance merit consideration. Thorough coverage ranks in importance with proper timing in determining success with harvest sprays. The spray must contact the fruit stem to be effective.

U.S.D.A. LILIES PROMISING. President of the American Bulb Company (Florists Exchange and Horticultural Trade World, June 20): At the experimental grounds at Baton Rouge, Louisiana, I saw a fine collection of seedlings sent by Dr. L.S. Emsweller of Beltsville, Md. I am sure that among these seedlings we have the nucleus of many improvements in the easter lily. It wasn't common to see a 5in. bulb producing as many as 15 to 20 blooms. Among perhaps 35 seedlings, it would have been difficult for me to discard any. Some have narrow leaves, some have broad leaves, some grow taller than others, and some come into bloom earlier than others. It is my belief the industry will owe a great deal to Dr. Emsweller for developing new lilies for the future. These seedlings have been sent to various parts of the country. I saw some of them near Los Angeles showing very good results, and at Beltsville there are many others. Florists should not overlook the opportunity to inspect these promising seedlings of the future.

RECEIVED

\* JUL 1 4 1942 \*

U.S. Department of Agriculture

### The Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not hecessarily approved by the Department of Agriculture.

Washington, D.C., June 24, 1942

WHENLY WEATHER AND CROP BULLETIN: In most parts of the country the weather of the week just closed did not differ much from conditions in recent weeks. Outstanding features were wide-spread rains over most principal agricultural sections of the interior, and subnormal temperatures in the Midwest and Northwest. In the more eastern States crops are responding rapidly to good growing weather. However, a few localities along the central Atlantic coast, principally southern New Jersey and extreme southeastern Virginia, are too dry. In the latter area crops are deteriorating and the domestic water supply has become critical. northern sections between the Lake region and Rocky Mountains, less rainfall facilitated field work and conditions were generally favorable for grains, grass, and other cool-weather crops, but temperatures were too low for warm weather varieties. In central portions of the country, including nearly the entire area between the Appalachian and Rocky Mountains, there is urgent need for warm, dry weather and more sunshine. Cultivation of row crops is hampered and other field work, such as having and harvesting small grains, interrupted by frequent rains. In the Cotton Belt, conditions were mostly favorable, except for too much rain in the northwest, principally Arkansas and eastern Oklahoma. A limited southwestern area, including principally parts of western Texas and New Mexico, still needs rain badly, but this is the only extensive section where moisture is not ample to superabundant.

Mhile winter wheat continued to develop satisfactorily in most sections, need for dry, sunshiny weather is becoming urgent in the central valleys and western belt, especially in southern sections where grain is ripe and harvest is in progress. In much of the Wheat Belt the past week was cloudy and rainy, which interfered with harvest where grain is ripe. In the Spring Wheat Belt conditions were decidedly favorable. There was considerable sunshine and rainfall was light to moderate. Progress of spring wheat is satisfactory.

Corn needs warmth and sunshine. Continuation of cool, cloudy and rainy weather in most of the Corn Belt was unfavorable. In the northwestern portions of the main Corn Belt, from the latitude of central Iowa northwestward, light to moderate rains made conditions favorable for cultivation and cleaning fields that had become very weedy, but warmer weather is needed in this area.

In the Cotton Belt temperatures averaged moderately above normal in the more eastern and western sections and near normal in other portions. Rainfall was mostly light to moderate, except for some heavy falls in central-southern and some north-western areas. The weather was generally favorable, except in the wetter localities. East of the Mississippi River the week was rather generally favorable, except in some wet localities, principally in southern portions, where fields are grassy and weevil active. Squares are forming as far north as central Georgia.

GROWING TOBACCO AS A SOURCE OF NICOTINE. (Technical Bulletin, No. 820): At present the commercial supply of nicotine is a byproduct of the tobacco industry...Trials were conducted at several representative locations to determine the amount of nicotine produced by Nicotiana rustica as compared with ordinary tobacco and to ascertain the most favorable conditions and production methods for obtaining a high yield of nicotine per acre...As the problem now stands, growing high-nicotine tobaccos solely for their nicotine content apparently is feasible, but does not offer a wide margin of profit on the basis of prices now paid for byproduct leaf. Commercial development would depend upon information obtained from more definite cost studies in both the producing and manufacturing phases of the problem. Development of higher yielding strains possessing desirable growth habits seems to furnish the most promising outlook for increasing the output per acre of nicotine.

WHAT YOU CAN'T SHIP — STORE. (American Fruit Grower, June): Because fruit is in the front of foods vital to the health of the nation during the war emergency, as well as afterwards, the fruit grower must shoulder a double responsibility this season: he must produce the largest crops possible to meet the needs of our armed forces and civilians, especially defense workers; he must also get his crop to market without imposing too great a burden upon the country's transportation systems, particularly the railroads. The fruit grower knows the answers to the first part of this problem, that of production, and, he can help to solve the second part — transportation — by adopting a "staggered system" of shipping his crop to market, instead of dumping it upon the overburdened railroads.

Fruit growers should support all steps to improve efficiency in the use of railway equipment — such matters as heavier loading per car, faster loading and unloading of cars, more careful timing of shipments, and the like. Steps should be taken now to arrange storage space in order that fruit harvest can be held on the farm for a time, in case of transportation shortage. With adequate storage on the farm, a grower can control and "space out" his shipping schedules. When a grower has his own storage on the farm he does not have to sell his crop at the first price offered because he can hold his apples until prices and shipping conditions are satisfactory. Storage on the farm also makes it possible — and profitable — to grade and pack during the winter months to suit the requirements of individual purchasers or the market.

BANG'S VACCINATION IN WISCONSIN. (Hoard's Dairyman, June 25):
Vaccination of calves against Bang's disease may now be practiced on permit from the state department of agriculture in clean and accredited herds in Wisconsin as well as in infected herds. A tattoo mark is to be applied to the left ear of vaccinated calves to show that they have been vaccinated with Bang's vaccine. Only approved veterinarians will be permitted to vaccinate calves and apply the tattoo mark. Principally as an accommodation to 4-H club members, Future Farmers, and others desiring a few head of beef cattle, bulls and heifers of the beef breeds, under one year of age, may now be shipped into Wisconsin from range or semi-range districts on permits issued by the state department of agriculture and subject to test and inspection upon arrival in this state.

MILK CAN CONSERVATION. (American Milk Review, June): Sheffield Farms, New York City, announces that in a cooperative effort to conserve milk cans the company has requested its country inspectors and superintendents to assist farmers in every way to return cans to the company's country plants. A check has shown that thousands of these cans are scattered over the milk shed and are not being used as efficiently as they should be to handle milk.

GRACE E. FRYSINGER GIVEN HONORARY DEGREE. The following citation was given when Drexel Institute of Technology, of which she is a graduate, conferred upon her the honorary degree of Doctor of Science. The occasion was the 50th Anniversary of the founding of the Institution and was the first time that honorary degrees have been awarded by the Institute. "Grace E. Frysinger, Extension Service, United States Department of Agriculture first woman President of the American Country Life Association, one time Vice President of the Associated Country Women of the World, and of the American Association for Adult Education. Decorated by King Albert of Belgium 1927. A woman of international distinction and expert in the problems of rural home life. As an educator and writer, she has rendered invaluable service in the improvement of rural life in all parts of the world, especially in America, where by virtue of her high position as Senior Home Economist in the Department of Agriculture, she has made outstanding contributions to the improvement of the standards of living in the rural communities of our country."

TEN RESTRICTIONS FOR ICE CREAM INDUSTRY PROPOSED. (Southern Dairy Products Journal, June): As a general conservation measure, the War Production Board has recommended ten restrictions for the ice cream industry. The recommendations are: (1) Limit of two grades or fat standards of ice cream in any one State. (2) Limit of ten flavors in bulk ice cream in one fat standard and ten single flavors or combination of flavors in package ice cream — twenty flavors in all. (3) Limit of two flavors of sherbets, ices and five-cent cups, combined in one cup or separately. (4) Limit of five novelties, different in type or flavor. (5) Restrict purchase of bulk ice cream cans to  $2\frac{1}{2}$  and 5 gallon sizes. (6) Restrict to quart and pint size packages filled at the factory, except cups which are to be restricted to 7 dz. or  $3\frac{1}{2}$  oz. and 3 oz. sizes. (7) Limit use of paper cans to five gallon size as far as possible. (8) Restrict ice cream packages of one quart size or less to designs recommended by WPB. (9) Use of common carriers to serve scattered trade. (10) Use of steel cans if available.

POWDERED MILK EUSINESS. (Business Week, June 13): Powdered milk is a familiar product on the American market but the shortage of shipping space across the North Atlantic to lend-lease outlets has created a big new demand for it, as well as for canned cheese, dehydrated mashed potatoes, and canned meat. Feature of powdered-milk business is the premium paid by lend-lease officials for "whole" milk (including cream). It's only recently that processors have found a way of drying and packing the fat content so that it does not turn rancid before being used.

RESEARCH AIDS INDIA'S WAR EFFORT. (Foreign Commerce Weekly, June 13); The annual report of the Forest Research Institute, Dehra Dun, reveals how India's war effort and also industry and trade have been aided by the Institute's work in finding local substitutes for scarce or "critical" materials. Research has been conducted along many lines. Fiberboard cases for packing canned goods, ghee, and other commodities; wooden corks for medicine bottles; bamboo tent poles; rifle woods; timber for ammunition boxes; and fiberboard packing boxes for ordnance stores form some of the successful results of these experiments.

Special research has also been carried on for industry and trade. A liquid resin for bituminous emulsions, vegetable tallow as a substitute for wax for coating matches, and wood to fill dry-cell electric batteries have been developed by the Institute. All these products were formerly imported from Germany.

ODT WILL TAKE MONTHLY SAMPLING FOR TRANSPORT NEEDS. (Victory, June 16): As an aid to bringing about greater utilization of existing freight transportation facilities, the Office of Defense Transportation has initiated a plan designed to provide monthly an accurate forecast of the Nation's freight equipment requirements. ODT Director Eastman has a sked a large representative group of manufacturers, producers and distributors to submit, beginning June 15, an advance monthly estimate of traffic movement from their establishments. The information, to be provided on a special form, will include the commodity to be shipped.

IMPORTANCE OF THE EDIBLE FIELD BEAN CROP. (USDA Leaflet No. 223): In recent years the crop of (dry) edible field beans in the United States has ranged from about 10 to 15 million bags of 100 pounds each, with a farm value of 40 to 50 million dollars. East of the Mississippi River, about 700,000 acres, yielding about 5 million bags were grown annually from 1929 to 1938, while about a million acres, yielding about 8 million bags, were grown in States farther west. Yields varied from less than 400 pounds per acre in some States to over 1,000 pounds in others. Over 90 percent of the beans grown in the East in recent years have been produced in Michigan and New York, with small quantities coming from Maine, Wisconsin, Vermont, and other States.

The bean is a warm-season crop damaged by the least frost, but it does not thrive under the heat of midsummer in the southern part of the United States, where production is largely unprofitable also because of serious and almost unavoidable infestations by bean weevils. Dried beans should be produced only in areas where heavy or frequent rains do not usually occur during the ripening and harvesting periods. Probably they could be produced east of the Mississippi in new areas where the summers are mild and the rainfall in late summer and early fall is rather light. Field beans are grown successfully on a wide variety of soil types ranging from light sandy loams to clays. Moderately fertile well-drained sandy loams and silt loams are best. Excessively fertile soils produce an undesirably heavy vine growth without a proportionate yield of seed, and poorly drained soils are conducive to disease and retarded growth.

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Washington, D.C., June 25, 1942

FACTS ABOUT MEAT. (Medical Record, June): Americans are great meat eaters — not the greatest in the world, but well up among them. The British also stood high among the meat eaters until the present war. Their present ration, however, allows them only one shilling and two pence worth of beef, veal, lamb, mutton, pork, and offals combined, weekly, or roughly a pound of fresh meat. A British family of about four persons consumed before the war about ten and one-half pounds of meat, including bacon and ham, per week, though consumption in poorer families was about six pounds or less. Such a family now gets less than five pounds of meat a week, national average, but that is from a fifth to a half more than a German family of similar size gets.

In other words, British meat consumption is something like thirty to forty percent below the pre-war level. That is much too low to maintain bouyant health. This explains why we are undertaking to send to Great Britain huge quantities of pork during 1942 in the Food For Freedom Program. Shall we then be deprived of meat? This seems very unlikely indeed. For the 1942 farm-production goals obligate us to produce in 1942 enough more meat than we produced in 1941 to pave a four-lane highway one inch deep extending from New York City to San Francisco and thence back to New Orleans.

INDEXING AND ABSTRACTING OF RESEARCH. (Science, June 19): The Joint Committee on Indexing and Abstracting in the Major Fields of Research is formulating a plan for study and solution of problems connected with the publication of indexing and abstracting services covering scientific, humanistic, social science, learned, professional and business fields. The committee is composed of representatives from the following associations: The American Association of Law Libraries, The American Library Association, The American Medical Association, The Association of Research Libraries, The Medical Library Association, The National Research Council and The Special Libraries Association. The committee is interested in hearing from other associations or individuals interested in these problems. Address Mrs. Barbara Cowles, chairman, Joint Committee on Indexing and Abstracting in the Major Fields of Research, University of California Library, Berkeley, Calif.

N.Y.C. WHOLESALE FOOD LICENSES. (Butchers' Advocate, June 17):
Beginning October 1, 1942, all wholesale food establishments in the City of
New York are to be licensed by the Department of Health. About 2,500
wholesale houses, now operating under non-fee permits, will be placed under
permit for the first time under the new ruling. The Board felt that the
licensing of all wholesale food establishments was necessary to give the
department of Health more complete control in supervising and maintaining
a wholesome food supply for the city.

PUMPS IN PLACE OF IABOR DURING EMERGENCY. (American Fruit Grower, June): It is reliably estimated that seven hours of labor of each two man spray crew can be saved by improved water facilities in orchards. On many farms more than one half the time of spraying is spent traveling to and from the trees and in filling the tank. Such labor losses are apt to be serious in a labor shortage such as fruit growers face at this time and can be reduced by the installations of additional pumping units and a more convenient water supply. Spraying which can be carried on continuously and progressively through the orchard requires in most cases, carefully planned piping, numerous soup wagons, additional elevated water storage tanks and more pumping units. The cost of such mechanical equipment quickly pays for itself in better, more timely spraying and saving of labor and materials.

JCHN BULL EATS AMERICAN. (Business Week, June 13): It's no secret that Britain's eating habits have been subjected to revolutionary changes due to the war. Yet few people realize what a variety of important repercussions have been caused by this country's agreement, under the lend-lease pact, to help feed the United Nations. The number of well-known American brands of canned goods that now appear on the shelves of any well-stocked grocery store in London indicate how successfully this program is already working. But visit the docks in any of a half-dozen American ports, confer for a day in Agricultural Marketing Administration offices in Washington with the men who are doing the buying, solving the shipping problems, and trying to satisfy the special tastes of the British (as well as the Russians) and you'll get a far more dramatic picture of the task that confronts America's farmers, food processors, and packers. Every state is participating in the undertaking.

But, contrary to our experience in the last war and to popular expectations when the vast deal was first announced, wheat and canned vegetables and fruit have not made up the bulk of this business. Biggest deliveries so far have been pork products. These range from lard and bacon to canned pork sausage (an unknown product to the average English housewife until a few months ago), dried eggs, evaporated milk, and cheese.

But there are some things beyond the volume of purchases now being made each month by the AMA that have the food industry agog. These include the revolutionary changes that are taking place in the form in which the foods are wanted, and the packaging demanded to meet special shipping requirements. Orange juice, for expample, is shipped only after it has been concentrated. Some orange concentrate is still packed in an average size can for home consumption, but the tin shortage is forcing packers to standardize on a large can which British officials later repack in six-ounce bottles. When used, the concentrate is diluted with water, eight parts of water to one of concentrate if concentrate is made from California oranges, and ten if made from Florida fruit. As long as fresh fruit is available, concentrated orange juice is not likely to become a popular item on the American retail market, but more than 1,000,000 gal. have already been shipped abroad. Small quantities of concentrated lemon juice have also been shipped to Britain, but all grapefruit juice goes straight.

The novelty form in which grapefruit leaves this country is one especially developed to meet the British taste for "bitter" marmalade.

Ordinarily, British processors made their marmalade from the bitter oranges grown, for the most part, in Spain. When this supply was reduced to a trickle, the British just about decided to give up marmalade rather than make it from American sweet oranges. But authorities soon decided it was cheaper to find a substitute for Spanish oranges than to provide the larger supplies of butter which would be required as a spread if there was no marmalade. Out of this necessity was born a new product — a marmalade made of American sweet oranges skilfully mixed with the bitter peel of grapefruit. The oranges and grapefruit peel are prepared in the form of a pulp and then shipped in 500-lb. barrels. The process was invented only last November, and the last special machinery for slicing the grapefruit skins was installed as recently as March.

CUBAN GOVERNMENT REGULATIONS. (Foreign Commerce Weekly, June 13):
The Cuban Government/issued the following important decrees: (1) Regulating sales profits on certain articles of prime necessity; (2) Regulating prices on peanuts and peanut oil; (3) Authorizing an increase in the price of gasoline and establishing a consumption tax on natural gasoline produced on the island; and (4) Prohibiting the exportation of cattle and fresh beef for a minimum period of 1 month.

MILK TRUCKS OUT OF USE IN 2 YEARS UNLESS CONSERVED. (Victory, June 16): Most of the country's milk trucks will be off the streets in less than 2 years as a result of the rubber shortage unless effective programs for conservation of equipment are instituted without delay, ODT asserts. That long-range conservation of tires and trucks in the milk distribution industry is needed is indicated in a report prepared by the Milk Industry Foundation on the basis of data collected by the International Association of Milk Dealers. The survey, requested by the ODT, covered 389 milk distributing industries in all parts of the country. Virtually every dealer questioned said his retail delivery service would have to end within 2 years if continued on the normal basis.

One hundred and fifty-four of the 389 dairymen had put their deliveries on an every-other-day basis. The plans in process of adoption when the survey was made also included elimination of Sunday deliveries, discontinuance of call-backs, making of collections in conjunction with deliveries, and conversion to horse-drawn vehicles. A few dealers combined deliveries with other dealers, and a small percentage of them consolidated routes and put two men on the trucks.

FOOD AND LABOR FOR WAR PRODUCTION. (Lincoln, Neb. Memo to Northern Great Plains Inf. Men): To make a battleship of 35,000 tons, it takes 25,900,000 man hours of labor and food from 42,000 acres. To make a bomber, it takes 100,000 man hours of labor and food from 155 acres. To make a medium tank, it takes 25,800 man hours of labor and food from 43 acres of land.

LIGHTING UF. (Co-operative Digest, June): Seven years ago about 10 percent of the 6,000,000 farms in the United States had "ready made" electricity. Today 35 percent of these farms are electrified. And total lighting up of rural America is in the government's post-war-plans book.

THE USDA AND PUBLIC OPINION. (Article in Public Opinion Quarterly, Summer P. 208): Before Pearl Harbor the Department of Agriculture had gone further than any other agency in systematically probing the minds of the public on vital issues. Reports indicated that farmers were somewhat hesitant about increasing production because of the uncertainty as to the future of prices for their products. The Information Office accordingly changed the character of its program with a view toward eliminating this uncertainty.

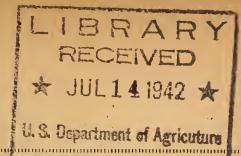
ADS. WILL EXPLAIN FAT SALVAGE DRIVE. (The National Provisioner, June 20): An extensive newspaper and radio advertising campaign will be used in promoting the national household fats salvage program which will be inaugurated early in July under the direction of the bureau of industrial conservation of the War Production Board. Housewives throughout the United States will be asked to save all used kitchen fats, such as bacon drippings and spent deep frying fat, accumulate them in metal containers until they have at least 1 lb., and take them to their local retail meat stores, locker plants or chain stores. Retailers will buy the grease and sell it to the renderers who pick up their shop fats.

The Associated Glycerine Manufacturers, representing about 120 glycerine and soap manufacturing firms, has raised almost \$500,000 to pay for the advertising program to explain the salvage plan to the nation's housewives. However, no newspaper advertising will run in any city until at least 75 percent of the local retailers have agreed to collect the fats at their stores. Renderers have promised to cooperate. Twenty-five thousand meat industry salesmen have already distributed a letter in which Lessing J. Rosenwald, chief of WPB's bureau of industrial conservation, explained the salvage plan to retail meat dealers. Mr. Rosenwald said that approximately 2,000,000,000 lbs. of cooking fat is wasted annually and that he hoped the campaign would return at least 500,000,000 lbs. of this lost fat into the war effort.

NUTRITION OF INDUSTRIAL WORKERS IN WARTIME. (Canadian Textile Journal, June 19): Improved health and morale which result when inadequate diets are brought up to adequate levels may be translated into greater working efficiency, fewer absences from work, and a decrease in the number of accidents, according to a report of the Committee on Nutrition in Industry and published by the U.S. National Research Council. The booklet, entitled "The Food and Nutrition of Industrial Workers in Wartime," outlines practical considerations for improving nutritional health of employees. Prevalence of nutritional deficiencies, British experience with recruits and factory workers, industrial health practices, sources of information on nutrition, etc. are among the topics covered.

BRITAIN WILL BAN ICE CREAM MAKING. (London report by AP, in Washington Post, June 25): The British Ministry of Food has announced that the manufacture of ice cream will be banned after September 5. This move, the ministry said, will save quantities of fats, sugar, and wrapping paper. More than 1,500 ice cream makers will be freed for work in war factories, transport and refrigerated space will be saved.

#### he Daily Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C.; June 26, 1942

GLASS JAR MAY BE REUSED IN HOME CANNING. (Post-Standard, Syracuse, June 14) A new home-front weapon — designed to conserve vital war materials in food packaging — is a jar for glassed coffee which, thanks to a new extra lid which can be obtained separately, will be used for both commercial packaging of foods and home preserving. The new lid is in line with the government's suggestion that commercial glass containers be designed to have a re-use value, thus conserving both material and labor. Housewives will find it simple to convert the commercially-packed jar — purchased at the grocer's filled with vacuum-packed coffee — into a jar for home preserving.

The "thrifty lid," a separate, thin, composition-lined lid, is available at grocers. Printed on the original screw cap of the jar are instructions for re-use of the jar in home preserving and how to use the extra lid. When Mrs. Housewife has emotied the contents of the jar and wishes to reuse the container she first scrapes off the composition sealing on the inside of the original screw-on cap. Next the jar is filled with home preserves and the "thrifty lid" is placed over the mouth of the jar. By screwing on the outside cap which came with the jar, enough pressure is supplied to make an air-tight closure. When the jar cools an internal vacuum will form and the outer cap is removed. The "thrifty lid" will seal the contents indefinitely. No rubber rings are necessary.

ARMY HORSE BREEDING PROGRAM PROGRESSES. (Western Livestock Journal, June 15) The Army Horse Breeding Plan is the very core of the Remount Division of the Quartermaster Corps. A suitable number of military horses must be supplied to the Army each year, and this necessitates carefully planned breeding. Throughout the various Remount areas, mares are now being bred to high-class stallions. From a recent report it was estimated that a total of 18,759 mares were bred during 1941, with 724 stallions at stud, the War Department announced.

The most predominate Army horse bred during 1941 was the Thoroughbred, numbering some 17,983 mares with 685 stallions at stud. The drop to the next most popular breed in the Army, the Arabian, was great, with only 375 mares bred and 16 stallions at stud. After that, in order of the greater number, came the Morgan, Saddlebred, Anglo-Arabian, with the Cleveland Bay winding up the list with eight mares bred and one stallion at stud.

LAMB BREEDING POOLS, started by Clinton county, Ohio, co-operatives ten years ago with a half dozen purebred rams, are paying dividends. At recent sales on the Cincinnati Yards, the Producers' Commission Co. reports, lambs from the 12 Clinton county pools averaged \$1.55 per head above the average for the rest of the market. (Farm Journal, July)

June 19) The formal dedication of the Technological Institute of Northwestern University took place on June 15 and 16. The institute operates on the cooperative plan, under which students alternate a three-month period of study on the campus with an equal period of work in industry. Seventy large industrial firms in 12 different states cooperate with the institute in this program.

KARAKUL BREEDERS ENCOURAGED. (Business Week, June 13) American breeders of Karakul sheep --- whose sleek, curly skins, greatly prized by the ladies, are known to the fur trade as "Persian lamb" --- are perking up these days. They are hopeful that, as Hitler's submarines cut off foreign skin supplies there will be a bigger demand for their wares. Shipments of Persians have come to this country from Afghanistan, Persia, and Southwest Africa, where the Karakul has been successfully transplanted. Heretofore, fur dealers and manufacturers have greatly preferred skins imported from these countries to those taken from domestic herds. They claim U.S. skins generally are of inferior quality -- the result of much cross-breeding. They also complain that most American herders can't supply large enough quantities to make dealing with them worthwhile.

U.S. herders may be inflating their market for more than its worth. Allowing for a bit of overoptimism, however, there are good indications that U.S. Karakul raising is a growing industry which may give foreign suppliers some stiff competition before too many years. Notably, American herds are gradually increasing in size. From some 50 head imported into this country with great difficulty (export of Karakul from Asia is prohibited) between 1909 and 1914, and from a few sheep brought in later, the number of purebred, registered Karakul in the U.S. has increased to an estimated 5,000.

The Karakul is a hardy animal. It can live even under conditions which would be tough on sheep of common, domestic breeds. Years of foraging on the Asian deserts has accustomed the Karakul to a rough terrain and a weedy diet. Lowry Hagerman of Santa Fe, N.M., the owner of one of the country's largest and oldest herds stresses the fact that Karakul should be given plenty of range room, should not be overfed. Says Mr. Hagerman, emphatically, "Running Karakuls is strictly a sheep enterprise. They cannot and must not be treated as a hobby or a backyard pet." Some Karakul wool is now being used for textiles in this country, but here, as in Asia, most Karakul are clipped for carpet wool.

BELGIAN CONGO CONTROLS RUBBER EXPORTS. (Foreign Commerce Weekly, June 13) The Government of the Belgian Congo has established control of exports of rubber from that colony and Ruanda-Urundi, to prevent speculation and inadvisable price increases, as well as to assure that the distribution of the product abroad will conform to the needs of the inter-Allied war effort.

FIELD BAKING UNIT. (Pathfinder, June 20) Bread for a day for 4,000 troops is the output of the new lightweight field baking unit the Army has put into service. Its two ovens and motor driven mixer, transported by Army truck or carried short distances by four soldiers, are operated by specially trained experts. It can be erected in the field in less than a half hour with only one tool, and saves 50 percent in labor and considerable time. Fuel? Just anything, like gasoline, coal or wood.

gestions were made this week that a corps of federal food wardens might be organized to carry rationing news, explain food shortages and give tips for diet improvement and other information to the people. The food warden setup would be organized in urban areas on a block-to-block basis, similar to the air warden plan, and in rural areas would employ "neighborhood leaders." It would work both ways — transmitting war information to the people by word of mouth and sending back reactions and complaints to guide the government in arriving at new policies. One of the first jobs to be handed the food wardens probably would be that of informing housewives of the health benefits in eating cheese and urging larger consumption of eggs. Temporary surpluses are bound to develop in some commodities, as movement of foods to other United Nations lags behind growing agricultural production.

COTTON FABRIC FOR SERVICE RAINCOATS. (Canadian Textile Journal, June 19) Orders have been placed by the Canadian Department of Munitions and Supply for two million yards of weather-proofed cotton fabric for use in the manufacture of service raincoats. The basic cotton fabric, similar in construction to shirting material, will be made by Canadian mills and weather-proofing will be carried out in plants outside the textile industry. Weatherproofing materials, the basis part of which is limestone, will be produced in Canada in July. The white powder obtained from the limestone is transformed into polymerized vinyl resin which, in turn, is dissolved in a suitable solvent, pigmented to give it the khaki or air force blue colour. The coating is then applied to the cotton fabric. The finished product is said to be more satisfactory than rubber. It is much lighter and can stand a cold of fifty degrees below zero without cracking, or a heat of 243 degrees without the surfaces adhering. It is not affected by most alkalis, acids, alcohols, petroleum solvents, oils and greases.

WPB ASSURES SUFFLY OF WOOD-BURNING STOVES. (War Letter for Agriculture, June 22) Ample supply of wood-burning stoves for critical areas which may be involved in fuel shortages due to transportation difficulties has been assured by WPB. Civilian requirements for heating equipment have been estimated by WPB, and sufficient manufacturing capacity for the production of wood-burning heaters has been allowed to meet the needs. Woodburning heaters and cooking ranges can be purchased without priorities if they are available in stock. Where heating equipment on hand is designed for fuels that cannot be obtained in sufficient quantity, wood-burning stoves will be made available. In view of the transportation shortage, farmers are urged to substitute wood for other fuel where feasible. Such use probably has greatest possibilities in the hardwood and hardwood-pine regions of the Northeastern, Southern, and North Central States.

LONDON'S RETAIL DELIVERY SCHEME. (Foreign Commerce Weekly, June 20)
The retail delivery scheme for the London region adopted by shopkeepers to save fuel, vehicles, tires, and manpower is now successfully in operation.
No goods except bread, milk, furniture, coal, and medicines will be delivered more than a mile from the shop except by pooled vehicles. There will be only one delivery a week to each customer, except newspaper deliveries, and separate calls for orders have been discontinued. The plan applies to deliveries by all forms of transport — motor, horse, electric, and hand vehicles as well as cycles.

SUGAR BEETS. (Farmers Bulletin No. 1903) Sugar-Beet production, important in peacetime agriculture, becomes in wartime a vital part of national effort. As a basic foodstuff, sugar provides about 13 percent of all the onergy we get from foods. Our national requirement of sugar. always large, becomes in wartime very great, because sugar is used not only for our fighting forces and those of our allies but also as a source of industrial alcohol essential for munition manufacture. Rationing for civilian uses represents one method of obtaining these necessary supplies; on the other hand, much can be done to increase supplies by strongly stepping up production. Every additional acre planted to sugar beets and and every extra ton of sugar on the increased acreage resulting from better farming contributes to the country's effort. Now is the time to apply all the knowledge gained by research in recent years. Resistant varieties, developed by the United States Department of Agriculture, have removed much of the threat of curly top epidemics, and, in contrast to World War I conditions, adequate supplies of seed of these improved American varieties are available. The valuable byproducts from the sugar beet (tops, pulp. and sugar-beet molasses) have a recognized and significant value as feeds for farm animals. The wartime requirements for more milk and other dairy products and for more meat make imperative effective utilization of these valuable feeds.

CANADIAN R.O.P. CREDITS. (Holstein-Friesian World, June 20) Very gratifying was the action of the Board of Directors in deciding to recognize Canadian Record of Performance credits on cows that are purchased in Canada while on test and continued in test here. The completed lactation record will be published, with an indication of the number of days, and perhaps the separate production credits, under R.O.P. supervisions. This permits lifetime performances to be continued without a break and officially recorded. The action is expected to be made reciprocal by the Canadian Association at its next meeting.

NEW PARPHIET ON DEHYDRATION. (Fruit Products Journal, June)
Nutritive Value of Dried and Dehydrated Fruits and Vegetables: (New York
Experiment Station. Technical Bulletin No. 262. Price, 15 cents.) The
dehydrated vegetables produced during World War I were not only lacking
in palatability, but also rapidly lost all or nearly all of their content
of vitamin C and carotene, the precursor of vitamin A. Much research
work on processes of dehydration and nutritive values of dehydrated
vegetables has been carried out during the past 25 years. Although these
researches indicate that dehydrated vegetables and fruits of much higher
quality can now be manufactured, exact information concerning the best
means of preparing and storing dehydrated vegetables and fruits of high
vitamin content is still lacking. For this reason the Committee on Fats,
Vegetables, and Fruits of the Food and Nutrition Board of the National
Research Council requested the review in this bulletin of the literature
on nutritive value of dried and dehydrated fruits and vegetables.

LIME FROM EGGSHELLS. (Farm Journal, July) Eggshells from eggdrying or freezing plants are being spread on farm land (as an equivalent for lime), by corn-belt farmers who live near the plants.

#### The Daily Digest



Prepared by the Press Service for the use of USDA employees. Views and opinions in these items necessarily approved by the Department of Agriculture. 

Washington, D.C., June 29, 1942

MEETING OF INSTITUTE OF FOOD TECHNOLOGISTS. (Science News, June 19) E.M. Chace, of the U.S.D.A., stated that a hundred tons of cabbage a day, with similar mountainous quantities of onions, garlic and other vegetables, are being reduced to the bulk-saving, weight-saving dehydrated form in California processing plants formerly devoted to drying fruits. When the procurement officers for American armed services and purchasers for the lendlease program made known their huge-scale requirements for dehydrated vegetables, the first response was the conversion of the large fruit-drying plants. Some new establishments have also been set up. Mr. Chace, and also S.C. Prescott, Massachusetts Institute of Technology, warned against an over-enthusiastic rush to get into the food-dehydrating business. Food dehydration is not the simplest job in the world, and the number of men with adequate technical training is relatively small. Equipment also is a problem, because a certain amount of critical metal is needed for construction of a plant, as well as cutting and other processing machinery which may be difficult to obtain.

Despite their superior resistance to spoilage due to attacks of molds, bacteria and other outside organisms, dehydrated foods sometimes lose quality in storage. They become tough, or develop hay-like "off" tastes and odors. Causes for this were traced to the vegetables' own internal enzyme chemistry by W.V. Cruess and M.A. Joslyn, University of California. These enzymes are organic catalysts or ferments, necessary to the normal life activities of the plants, but damaging to their quality as foods if permitted to continue activity after harvesting and storing. In vegetables properly prepared for the dehydrator, all such life proccesses are stopped by steam or hot-water blanching.

Paper, cardboard, cellulose sheeting are being used as substitutes for tin. E.A. Throckmorton, of the Container Corporation of America, told of some of the ingenious ways in which manufacturers of non-metallic containers are meeting the war emergency in packaging. Greater strength and lower loss of contents are sought by bonding together materials of different kinds, forming a laminated structure. Thus, an impervious cellulose sheeting may be bonded to a strong cardboard backing, to make a package that will take hard jolts and not leak. Albin H. Warth, chemical director of Grown Cork and Seal Company, pointed out that the packaging problem is not merely one of finding substitutes for tin, copper, cork and other scarce materials, but of devising packages in the making and filling of which existing machinery can be used with little modification. Otherwise quantities of steel and other critical materials will be required for new machinery. Paper has been heralded as a substitute for almost everything. But to make it moistureproof it must be impregnated with suitable resins, themselves very scarce, resulting often in a very expensive package. The real problem is to secure coatings on metal that are resistant to sterilization temperatures. This

A quicker way of cleaning milk cans, thereby permitting more rapid circulation of these vital food containers with corresponding reduction of the amounts of metal tied up in milk cans, was described. The steam used in cleaning the cans is acidified with gluconic acid. After some experimentation it has been found possible to dispense altogether with the use of alkaline cleansing agents formerly used, thus releasing them for other essential war industries. Gluconic acid, formerly a chemical rarity costing dollars an ounce, is now a chemical commonplace costing only a few cents a pound because investigators of the Department of Agriculture some years ago discovered a strain of molds that would make it rapidly and in large quantity out of a glucose solution.

RESEARCH PAYS NOW ... AND LATER. (Scientific American, July) Substitute the drive of life-and-death necessity for the dollars-and-cents motive, and there appear amazing results from the research laboratory. That is exactly what is happening in many industries today, particularly in the automotive industry where production is all-out for war and not at all for the civilian consumer who has been the basis on which the industry has been built....Metals are by no means the only materials which are receiving attention of researchers. Leathers, fabrics, and felts have been developed as alternates for the rubber and synthetic rubbers that were formerly used in anti-squeak pads, bumpers, gaskets, and seals. Plastics have been put into service in steering wheels, replacing the hard rubber formerly used. Other similar plastics, in extruded form, havefound application in cooling-system and other hoses. Battery boxes of molded natural asphalt found in Utah are releasing still more rubber. In one combat vehicle, original plans called for 12 pounds of rubber, exclusive of tires. Alternate materials have cut this rubber requirement to one half pound. Another vehicle has been redesigned to use alternates, with the result of saving more than 16 pounds of rubber and almost five pounds of nickel per unit. No one knows today what the civilian automobile will look like when the industry starts after customers instead of after Japs and Nazis, but we can rest assured it will have better materials and greater efficiency than ever before.

THRIFTY LIDS. (Business Week, June 13) New sales angle for Best Foods and Maxwell House is re-use of their mayonnaise and coffee jars in home canning. Compositions discs, called "thrifty lids" and "preserving seals," make conversion possible and replace now-precious rubber rings formerly used to give canned goods an air-tight seal. Labels advise consumers that discs are available from Best Foods and various coffee roasters for a penny apiece (10¢ a dozen). Grocers may handle lids later when Victory Garden canners' demands increase.

MITE CONTROL PAYS. (Farm Journal, July) Mite control comes under the heading of good poultry management. On Illinois farms where records were kept by owners and analyzed by college extension folks, the flocks that had no mite control treatment returned \$164 for every \$100 invested; in flocks with mite control, the return was \$200 for every \$100 invested. Carbolineum, used once a year, keeps mites in check.

CANADIAN TEA, COFFEE, SUGAR RATIONING. (Foreign Commerce Weekly, June 13) The consumption of roasted coffee has been cut 25 percent, and of tea 50 percent, by the Canadian Wartime Prices and Trade Board. This permits the use of three-fourths of the quantity of coffee and one-half the quantity of tea heretofore normally used by the individual. The Canadian sugar ration has been reduced from three-fourths of a pound per person per week to one-half pound per person per week. Purchases of sugar for preserving or canning are to be made on the basis of one-half pound of sugar for every 1 pound of fruit weight, and, for jam or jelly, on the basis of three-fourths of a pound of sugar for every 1 pound of fruit weight. All home-made jams and jellies are to be preserved with three parts of sugar to four parts of fruit or juice. Industrial users are restricted to 70 percent of the quantity of sugar used in corresponding quarters of 1941.

ENGLAND UTILIZES LIVESTOCK KILLED IN BOMBING. (The National Provisioner, June 20) When England first entered the war, it was believed that livestock killed or injured by bombing could be salvaged and the meat used for human consumption. However, with most of the raids coming at night it was impossible to reach the carcasses until daylight because of restrictions against artificial light in raided areas. Animals that had been killed were left until the following morning and by that time the flesh was contaminated and unfit for human use. Only a few carcasses could be salvaged for food. A method that has proved satisfactory in saving some carcasses has been practiced for some time. In and near towns, men are now available before the "all clear" signal and the injured and dead animals are butchered as soon as found.

DESIGNS NEW DEVICE FOR GRAPE SPRAYING. (The Fruit Products Journal, June) An attachment for the vineyard spray rig known as a "hooded boom", which insures satisfactory coverage of foliage and fruit when spraying grapes, is described in a mimeographed publication by E.F. Taschenberg, entomologist, State Experiment Station, Geneva, N.Y. A copy may be obtained upon request to the Station. Correct placement of sprays is readily achieved on calm days by proper arrangement of the nozzles on the boom, but wind may prevent a thorough application. A hooded boom was used in Michigan about 1939 and since then has been employed in the principal grape-growing areas of the Great Lakes region. The device is not adapted to hillside vineyards, however. The N.Y. Station hooded boom can be quickly erected and disassembled in order to move the truck-mounted sprayer on the highways.

EXPANSION OF CANADIAN WOOL PRODUCTION. (Canadian Textile Journal, June 19) With the object of increasing raw wool production in Canada, the Dominion government will provide financial assistance in provincial programs to increase the sheep population. The plan provides for payment of freight charges on the movement of female breeding stock and for the loan of rams to farmers starting to raise new flocks. During the period August 1 to December 31, 1942, freight charges will be paid by the Agricultural Supplies Board from points or origin to distribution on ewes or ewe lambs purchased for breeding. The board will purchase and loan suitable rams to farmers starting new flocks of sheep.

BRAZILIAN CELLULOSE AND PAPER PLANT. (Foreign Commerce Weekly, June 20) An important industrial prospect in Brazil is a \$6,500,000 cellulose and paper plant, now under construction. When completed in 1943, the plant will be the largest of its kind in South America, producing daily 100 tons of wood for mechanical pulp, 60 tons of bleached pulp, and 40 tons of unbleached chemical cellulose. This output will supply 40 percent of Brazil's need of cellulose for paper making. At present there is no factory in Brazil producing chemical cellulose, and, except for the quantity Brazil may be able to get from Sweden, the United States will be called upon this year to furnish the 70,000 tons annually required. The plant will not produce cellulose for the manufacture of rayon.

THE LITTLE SISTER OF THE DAIRY COW. (Western Livestock Journal, June 15) It has been a long uphill struggle to introduce the milk goat in America. There was prejudice to overcome and there were plenty of cows and plenty of feed for them. But gradually the dairy goat has come, and made some headway. Today there are four principal breeds of dairy goats in the United States, the Toggenberg, Saanen, Alpine and Nubian. No matter what the rank and file may think about goats, the people who have them, breed them, and raise them are well "sold" on them. There is no need and no. likelihood of goats taking the place of dairy cows. It costs as much (probably a little more) to produce a pound of goat milk as it does a pound of cow milk. Goat milk is a specialized product designed particularly for infants who are allergic to cow milk, for children with delicate stomachs, for the sick and for the aged whose powers of digestion have run down. This, say the authorities, is because the particles of fat in goat milk are extremely small and so are more easily digested, and the curd is very soft and tender. The female goat is a friendly, sociable little creature which will become a pet if you give her a chance. If she is kept clean she has no odor, and if scrupulous sanitation is used the milk has no foreign flavor.

WPB ORDER CONTROLS PYRETHRUM FOR INSECTICIDES. (War Letter for Agriculture, June 22) A new allocation order for pyrethrum, used in insecticides, has been put into effect by WPB with a view to insuring sufficient supplies for use of the armed forces. This does not mean that pyrethrum will be devied for use in agriculture but that the needs of the farmer will come second only to the requirements of the military. He schold needs will come after the armed forces and agriculture. Should shipments continue to arrive from Africa, the supply of pyrethrum may be more plentiful by fall, but need for allocation is expected to continue for some time. Since rotenone was put under allocation, greater demands have been made on pyrethrum as a substitute.

FARM MANAGEMENT STUDY. (Farm Journal, July) Recently the American Society of Farm Managers issued a brief document which merits study by any farmer who wants to get and keep ahead in these changing times. Called "Agricultural War Policy," this statement is built out of the experience of men who make their livings by making farms pay. Set forth are not only principles for individual farmers but elements of an agricultural program for the future. Professional farm managers operate lands for owners who live elsewhere. In order to stay in business they must handle farms efficiently enough to earn their fees and improve the profits besides. Their Society has set up high standards which members must meet in order to be accredited as managers and appraisers.

# The Daily Digest

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Washington, D.C., June 30, 1942

INCREASED BEEF PRODUCTION THROUGH CONSERVATIVE STOCKING. (Western Livestock Journal, June 15) During the first World War, an attempt was made to increase livestock production in the West by grazing increased numbers on the range, but results were disappointing...Once more the problem of the proper balance between range livestock numbers and forage resources of the West has become acute with the rapid increase in the livestock population during the past five years since the last severe drouth. Heavy liquidation of livestock and staggering financial losses have been the rule rather than the exception during drouth years.

Weather records indicate that drouth years are inevitable in the western range country. They reoccur at irregular intervals but on the average of once in five to seven years in the Northern Great Plains. The range forage crop may arop to a small fraction of normal during these drouth emergencies. Livestock numbers must be regulated with this possibility in mind. Experience has demonstrated the urgent need for conservative stocking and other desirable range management practices that will minimize the drouth hazards and balance numbers of livestock with feed resources that will stabilize production at a sustained high level but avoid excessive risks and violent fluctuations.

BRAZILIAN COTTON CROP. (Foreign Commerce Weekly, June 20) The final official estimate of the 1940-41 crop of southern Brazil places it at over 400,000 tons, the greatest on record. The largest gain was reported in Sao Paulo.

During the last 10 months consumption of cotton in Brazil has been at record high levels. If textile manufacturing continues at the present rate, it is probable consumption for the 12 months ending June 30, 1942, will be about 170,000 metric tons.

WALL PANELS IN COLORS CEMENTED IN PLACE. (Scientific American, July) Plastic-coated wall panels which are completely pre-finished and require no "on-the-job" treatment after installation are a development to speed up emergency housing construction and remodeling. Supplied in sheets as large as four by eight feet, designed for either new structures or for speedy modernizing by covering old walls and ceilings, the sheets are best applied by a water-proof adhesive, but may also be installed with brads. They are available in 10 colors which are permanently bonded to the sheets by heat treatment. The surface is water-proof, stain-proof, dirt proof, vermin proof, and may be cleaned with soap and water. Available in three types — tileboard, panelboard, and streamlined board — the sheets may be installed by any competent carpenter.

"PRE-COOLED" ROASTING EARS from the lower Rio Grande Valley appeared on Texas vegetable markets in May. It was pre-cooled by giving the ears an ice water bath immediately after they were pulled from the stalks. Buyers declared that this process preserved the flavor and made the corn stay fresh much longer. (Farm Journal, July)

Beth tin and electric power will be conserved by a faster, more economical electrolytic process for plating strip steel with tin, announced recently by du Pont. Known as the Halogen tin process, this process employs a neutral solution which eliminates sludging and consequent waste of tin common to many electro-tinning methods. Strip steel for containers can be tin-plated twice as fast with less electric power by this process as by the "alkaline" electro-tinning method, thereby reducing substantially labor and power costs. A thinner, more uniform coat of tin can be applied to strip steel electrolytically than by the conventional "hot dip" method, resulting in savings of from 40 to 65 percent of the tin used. Tin deposited by the Halogen process can be heated without discoloration either when tin-plate is heated to obtain the bright finish required by some can manufacturers or when treated during the process of applying lacquers or enamels.

CALIFORNIA FLOWER INDUSTRY. (Business Week, June 13) What war can do to an industry that many people never heard of is shown by changes that have come to Southern California's cut flower business. It's an industry that grows and ships blossoms worth \$3,500,000 to \$4,000,000 at wholesale each year. Transport is causing most concern right at the moment. Most of Southern California's blooms have to go some distance, and about a quarter of the total travel to far parts by air. It seems almost certain that airmail and air express space soon will be denied flowers, and in most cases trains can't fill the breach because of perishability on long trips. Equally important is the shortage of tires and the limitations on deliveries. The tires to carry blooms to market fresh are wearing out and there won't be any replacements. Deliveries have been cut down to one a day to any regular stop; there are no call-backs, no special deliveries to funerals, weddings, or hospitals.

Removal of the Japanese has caused shortages. They grew more than half the acreage, furnished much of the labor, and were prominent in the wholesale and retail trades. Japanese growers specialized in field flowers like chysanthemums, carnations, sweet peas, and asters. They even had their own Los Angeles wholesale flower market. Now the Japanese are gone and perhaps 2,000 acres (in two- to ten-acre plots) are bare. There would be changes even if the Issei and the Nisei had stayed, because rubber hose, steel spraying pipe, ingenious spray devices for simulating rain, are practically unobtainable.

CARS, RUBBER AND GASOLINE. (Pathfinder, June 20) There are 34,000,-000 motor vehicles in the United States, serving 130,000,000 people. These cars, from limousines to jalopies, are riding themselves off the road at the rate of  $3\frac{1}{2}$  per cent a month. If everybody continues to run his car as he did in pre-war days 20,000,000 will go off the streets and highways in the next 12 to 15 months. That will leave 8,000,000 still rolling in 1943. The average car holds 4.2 passengers. In 1940 private passenger cars were driven 480 million miles with an average passenger load per mile of less than two. There was a per capita travel by auto in 1940 of 3,750 miles. American cars have been using half the world's output of rubber --- 98 percent coming from the Far East, now cut off.

CANADA RESTRICTS RUBBER IMPORTS. (Foreign Commerce Weekly, June 13) The importation into Canada of rubber and rubber products is prohibited except under a permit issued by the Minister of National Revenue. The order applies to crude natural rubber in all its forms, and includes liquid latex of natural rubber not compounded beyond the addition of preservative, unmanufactured balata, unmanufactured gutta-percha, and unmanufactured guayule, and articles or products manufactured wholly or in part of rubber of any kind, including rubber, as defined above, and scrap rubber and rubber reclaim.

U.S. TRUCK CONSERVATION CORPS. (The National Provisioner, June 20)
National plans for conservation of truck transportation have been announced by Commissioner John L. Rogers, director of the division of motor transport, Office of Defense Transportation. The plan will affect every owner and driver of the 5,000,000 motor trucks and the army of mechanics, garages, dealers and manufacturers who supply and service those trucks. Entirely voluntary in its conception, the plan calls for the cooperation of all persons and firms who own, service or supply rubber-tired transportation, and leaves the implementation of the plan to the manufacturing and sales organizations who know the trucking industry and are acquainted with its particular problems.

"We will organize the truck owners of America and all who serve them in maintenance work into a gigantic civilian army to be known as the U.S. Truck Conservation Corps." Commissioner Rogers stated, "and through the regular channels of trade and supply which will be a part of this organization, bring to every truck owner who will cooperate, all the information and help we can muster in keeping those trucks rolling with the minimum amount of tires and parts from our precious stockpiles." President Roosevelt has endorsed the program and addressed a letter to all owners and drivers of America's motor trucks on the subject. This letter is reproduced in a bookelet being printed and distributed by the Office of Defense Transportation.

GREAT WESTERN LIVESTOCK SHOW. (Western Livestock Journal, June 15)
Decision to hold the Great Western Livestock Show at Los Angeles in
December was made after directors gave the matter serious thought. The
show will be limited to four days, Dec. 1 to 4 inclusive and entries will
be limited to exhibits of animals which will be sold, either as fat stock
or breeding stock. All of this 'stock would be moved to market anyway, so
there will be no extra drain on transportation facilities. No extra labor
is involved, no large crowds will be attracted, no extra buildings or use
of materials will be necessary. The show will encourage greater production
of beef, pork and lamb by 4-H and FFA exhibitors, as well as by commercial
feeders.

LATIN AMERICAN PLANT SCIENCE LIST. (Science, June 19) An extensive list of institutions, societies and research workers in the pure and applied plant sciences in Central and South America has been prepared by the editors of Chronica Botanica, in cooperation with the Division of Agriculture of the Office of the Coordinator of Inter-American Affairs, Washington. It has been published in Chronica Botanica, Vol. 7, Nos. 2 and 3 (March and May, 1942.

FARM STRUCTURES INSTITUTE. (Farm Journal, July) A good move in the right direction is the organization of the Farm Structures Institute, which is a fact-finding and coordinating agency on farm buildings. It has/paid officers or employes, and has nothing to sell. Its members are representation of a dozen or more firms which manufacture building materials (steel, lumber insulating board, etc.). All members are contributing their time and traveling expenses to gather essential information on farm buildings. What the Institute wants to see is "a standardization of the basic functional requirements" of farm buildings. As an indication of what might be done with dairy barns, poultry houses, etc., the Institute points to the good results of cooperation between colleges, industry and the USDA in establishing the functional requirements of grain storage buildings in the ever-normal granary project. Once the requirements were defined, suitable buildings were produced quickly and economically.

CORRECTION. The first paragraph of the item, Facts About Sugar, in Daily Digest for June 19, stated incorrectly: "That covers only sugar purchased as such, and not the large quantities we also get in soft drinks, candies, cakes, preserves, ice cream, and such." Actually, the 2 pounds of sugar per week, which is a true per capita consumption figure, does cover all forms of sugar both household consumption and in manufactured foods. It is true that roughly: two-thirds of all sugar is consumed in homes and restaurants and one-third is used in processed or manufactured products. However, the 2 pounds of sugar per week per person covers sugar in all forms.

HAND SERVICE TOOLS FURTHER RESTRICTED. (War Letter for Agriculture, June 22) A limit has been placed by WPB on orders which producers of hand service tools may fill. Also limited by WPB order is the type of steel which may be used in producing these tools, which include chisels, hammers, snips, pliers, punches, screwdrivers, and wrenches. The farmer will still be able to purchase these tools if his local dealer has a supply. If not available locally, he will have to wait until his dealer receives an additional supply or apply for a preference rating that will insure delivery.

STEEL NOT NEEDED FOR GRAIN STORAGE. (Western Livestock Journal, June 15) Bulk storage facilities for wheat and other small grains or stock feed are a wartime necessity on farm or ranch due to the scarcity of bags and bag material. Efficient emergency storage bins of concrete may be built economically using a negligible amount of scarce materials needed for war purposes. Portland cement, sand, gravel or crushed stone, the same material used to build the largest frain elevators, are generally available in most communities, usually without long freight hauls.

U.S.A. PRODUCT. (Business Week, June 13) A new brand name — U.S. A. Product — now appears on the shelves of grocery stores all over Britain. The first product sold exclusively under the new label for delivery to England is egg powder. A 5-oz. package — the equivalent of one dozen shell eggs — sells for about 34¢.